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MEDICAL HISTORIES

AND

REFLECTIONS.

VOLUME I.

BY

JOHN FERRIAR, M. D.

PHYSICIAN TO THE MANCHESTER INFIRMARY,

AND LUNATIC HOSPITAL.

Hæc medendi disciplina si cum hypotheticæ splendore, fastu et magnificentia conferatur, tenuis quidem, imo vilis ac contemnenda videbitur. At in illa nihil salutaris nec vitalis inest, verum mira duntaxat ramorum, foliorumve luxuries, ad aspectum quidem pulchra, sed statim flaccescens, ubi primum eam novitatis gratia tanquam succus defecerit. Hæc vero, cum non ex rebus fictis, commentitiisque constet, non ostentationis, nec inanis, sed quæ in curandis hominibus sita est veræ, gravis, solidæque gloriæ cupida, nec ad ostentandos flores, sed ad uberrimos, et jucundissimos fructus proferendos comparata, in dies magis, magisque crescit, ac vegetior fi'.

Bagliv. Prax. Med. Lib. I. Cap. i.

LONDON:

PRINTED FOR CADELL AND DAVIES;

BY

J. HADDOCK, WARRINGTON.

1810.

TO

RICHARD SHARP, Esq. M. P.

THIS WORK

IS DEDICATED

BY HIS

AFFECTIONATE FRIEND,

THE AUTHOR.

DEDICATION

TO THE

Original Edition of the First Volume.

TO

THOMAS PERCIVAL, M. D.

F. R. S. &c.

DEAR SIR,

THE ceremony of dedication is generally so useless, or so humiliating, as to detract considerably from the dignity of men of letters. But medical authors, having the good fortune to write for their proper judges, are most inexcusable, if they solicit any other patronage than that of professional merit. In giving the ornament of your name to this little book, therefore, I only place my work under its natural

natural protector, a medical philosopher, zealous for the improvement of his science, and not less distinguished by liberality of conduct towards his younger brethren of the profession, than by those qualities which have gained him, in so eminent a degree, the confidence of the public.

When I add the consideration, that I have the happiness of addressing a friend, as well disposed to favour, as entitled to decide the fortune of these pages, it is with singular pleasure that I embrace this opportunity of acknowledging myself,

DEAR SIR,

Your most obliged,

MANCHESTER, Mosely-Street, *April* 30, 1792.

and most obedient servant,

THE AUTHOR.

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PREFACE

TO THE

PRESENT EDITION.

A Republication of these volumes has long been demanded by the Booksellers. It was my wish to have given them a complete revisal, and to have added several cases: but unavoidable circumstances have obliged me to contract my plan. Yet as seventeen years have

have elapsed since the first volume made its appearance, during which my opportunities of observation have been greatly enlarged, I could not think of again meeting the public eye, without introducing some degree of alteration and improvement.

In the present state of the profession, a critical view of our actual knowledge of diseases, and of the prevailing methods of treatment, would be a most valuable work, if judiciously executed. To an individual, great benefit must always result, from reviewing his own opinions and practice, from rejudging himself, and endeavouring to improve

on

on his former exertions. This task I have attempted, in the present edition, as far as my leisure would permit, and with all the impartiality of which I am capable.

In some of the discussions, which will be found augmented, I had some temptations to controversy; but I have preferred a convincing display of facts, from regard to the solemn and sacred nature of professional duty. A medical writer, who suffers personal considerations to warp his report of facts, is the worst of criminals.

Physicians should never lose sight of the high descent of their science. "Primóque,

" Primóque," says Celsus, " Medendi " Scientia Sapientiæ pars habebatur, " ut et morborum curatio, et rerum " naturæ contemplatio sub iisdem au- " toribus nata sit: scilicet his maximé " requirentibus qui corporum suorum " robora quieta cogitatione, nocturna- " que Vigilia minuerant. Ideoque " multos ex Sapientia professoribus " peritos ejus fuisse, accepimus." And even the elder Pliny, who has said so many severe fine things against medical men, has assigned an august origin to medicine itself; " Diis pri- " mum inventores suos assignavit, et " cælo dicavit: necnon et hodie mul-

" tifariam

" tifariam ab oraculis medicina peti-
" tur." *

It was my original intention to have published a volume of this work, once in three or four years, for which my practice would furnish sufficient materials, and which might have been executed by the regular employment of a moderate portion of time, but in this design I have been disappointed:

Οὐ γαρ ἔα πόνος ἀλλο, ὃν' Αργυρότοξο ἔγειρεν.
Ιλιαδ. Ε. l. 517.

* *Plinii Hist. Natural. Lib.* xxix. *Pröem.*

PREFACE

TO THE

FIRST EDITION OF THE FIRST VOLUME.

THE following pages contain a selection of cases and observations, chiefly drawn from my practice at the Manchester Infirmary. The extended plan of that institution affords the most favourable opportunities to a diligent observer, for ascertaining

with precision many facts in the history of diseases, and for appreciating the value of established methods of cure. Some part of the fruits of such advantages should therefore revert to the public, in acknowledgment of the good it bestows. And something may be added to the stock of science, by unwearied attention to a considerable number of patients, indiscriminately taken, in a great town.

The history of diseases has been much enriched, since the publication of Lord Verulam's Treatise on the Advancement of Sciences; in which, with his usual sagacity, he has recommended full descriptions of the morbid appearances

appearances in every disorder, and careful dissections illustrative of them. From that time, observation has been generally pursued, equally as the road to truth and reputation. Wherever the observer has delivered faithfully the result of a great number of facts, or has possessed that uncommon talent of concluding accurately from a few particulars to generals, science has been improved, and sometimes extended. And several authors preserve a distinguished place in medical libraries, because their descriptions of diseases are accurate and intelligible, although their particular systems, and modes of cure, be in a great measure exploded. But the method, so fa-

shionable at present, of publishing single cases, appears not well calculated to enlarge our knowledge, either of the nature or cure of diseases.* On a single instance of success, however faithfully delivered, no point of practice can rest; and although minuteness in descriptions of the natural course of symptoms is recommended by our best systematic writers, since Lord Verulam, yet the great and unnecessary prolixity of modern case-writers could never be intended by them; it is opposite, indeed, to the method of every author, eminent in

* Dr. Sydenham has expressed the same opinion of the inutility of publishing single cases.

this

this particular. Half a page of Aretæus, Celsus, or Sydenham conveys more circumstances, and with a more lively impression, to the reader, than many sheets of languid narration.* One would imagine, that Quintilian was prophesying of the latter sort of medical style, in his Chapter De Perspicuitate, "Est etiam in quibusdam "turba inanium verborum, qui dum "communem loquendi morem refor- "midant, ducti specie nitoris, circu-

* Neque quidpiam magis historiæ naturalis medicæ veritatem, fidelitatemque labefactavit, quam libido Auctorum in eadem exornanda, novis et elegantibus loquendi formulis, subtilibus speculationibus, copiosis auctorum citationibus, similibusque Lectorum gratia excogitatis. Bagliv. Prax. Med. p. 172.

" meunt omnia copiosa loquacitate quæ " dicere volunt."

In the succeeding selection, the cases are generally given as briefly as possible. My principal aim has been, to conclude, by direct induction from a sufficient number of facts, respecting the effects of certain modes of practice.* I have found, by some length of experience, that it is absolutely necessary for a physician, who would do justice to his patients, to

* If some exceptions should appear among these cases, I hope it is chiefly owing to the singularity of the complaint described, or to the necessity of elucidating a particular train of symptoms in a minute manner.

keep

keep a regular account of his success in the treatment of difficult diseases.* Some particular combinations, against which the severest mind cannot always guard itself, or some partial chain of events connected with the exhibition of a medicine, will frequently lead him to false conclusions, if he trust his memory alone, or neglect long to

* Hanc vero remediorum intimiorem cognitionem animo rite concipiendi, vix certior, rectior et compendiosior datur via, ac per observationes et morborum historias, quæ simul medicaminum propinatorum usum, genuinam applicationem et certos effectus recenſent atque complectuntur. Et hinc demum vera, certa et non fallax de remediorum viribus et efficacia, quæ tantopere in desiderio est, experientia, proficiscitur et medenti innotescit. Hoffman, tom. II. sect. 1. cap. 2.

adjust his Adversaria. The instances of good or ill success are likewise often separated by intervals of time, and other pursuits, which deaden or obliterate the force of comparison. By supporting a journal of the treatment and events of certain diseases, on the contrary, a physician supplies himself with data, on which he can reason with confidence, and act with satisfaction, in forming a plan of cure for every new patient.

One of the chief obstacles to accuracy in relating observations, has been the unhappy proneness of medical writers to form systems. Such gentlemen

tlemen would do well to read Mr. Locke's chapters on the abuse of language. A system ought to be nothing more than an arrangement of facts, in convenient order for the memory. So far, systems are neither true nor false; it is only of importance that the facts comprehended be true and well told. Yet to the false idol of system, particular truths, which are our proper objects, have too often been sacrificed. As I have long since resigned all exclusive preference for any system, and contented myself with using whatever each contains applicable to practice, the freedom of these cases will not, probably, be disputed.

I have

I have endeavoured to avoid many quotations.* When any passage of importance occurred to me, connected with a series of my observations, I have endeavoured to recal it. But I have been at no pains to ascertain whether any detached facts had been anticipated. Few claims to originality in medical books can now be supported. The assertion of a spasmodic state of the extreme vessels, in the cold stage of fevers, for example, commonly ascribed to Dr. Hoffman,

* It was smartly and justly said, however, by Gabriel Naudé (who seldom ventured to hold an opinion, for which he could not produce classical authority) that they only are averse to quotations who never expect to be quoted themselves.

was

was first made by Dr. Piens, in his comprehensive Treatise De Febre. But when I have entered on the use of a medicine, on the authority of any writer, I have always been careful to compare his experience with mine, and to make every necessary allowance where a variation appeared. Every man is partial to his own experience, and reckons it sure; and I have used my utmost caution not to urge my conclusions beyond the strength of the facts.

The Essay on the origin of contagious and new Diseases, was written for the Literary and Philosophical Society of Manchester, and perhaps may

may be misplaced in this volume. Its principal object, indeed, is not entirely medical; but as it suggests a motive for active benevolence, which has been little considered before, and involves many topics connected with one part of the observations, I have ventured to insert it, in hopes that its design may cover its faults.

Before I conclude, I cannot avoid acknowledging my obligations, for the design of this little work, and for several practical hints pursued in it, to the valuable publications of Dr. HOME. In his *Medical Facts and Experiments*, and his *Clinical Experiments, Histories and Dissections*, he has pointed out

out the only certain road to solid medical knowledge, and has laboured it with success. It is indeed only a fresh opening of the old Hippocratic way; at once decorated and obstructed by the remains of former writers. A man of science will neither condemn them with the ignorant, as rubbish, nor tremble with superstitious fear to remove them, where their place can be better supplied by fresh materials.

MEDICAL

MEDICAL HISTORIES

AND

REFLECTIONS.

SINGULAR PARALYTIC AFFECTION.

A STRONG, lusty, middle-aged man was suddenly affected with a tingling pain, succeeded by numbness, in the thumb and fingers of his right hand. In a few minutes, the parts became black, and the pain, extending along the arm and shoulder, darted into the right side of the mouth, just at the angle of the lips. He immediately felt his speech impeded; and he articulated with

with great difficulty, and very imperfectly, till the fit was over, which was completed in the course of half an hour. The paroxysm returned once in two or three hours, observing precisely the same course. His head was not affected, during any part of its duration, either with pain or giddiness; nor had any indications of a paralytic disorder preceded the attack. His bowels were in a regular state. His tongue was white.

I examined his hand with particular care, but could not discover any marks of injury about it; and he did not recollect, after repeated inquiries, that it had sustained any violence. I ordered a blister to be immediately applied to the outside of the fore-arm, in the direction of the radius, with the view of stimulating the principal nerves supplying the fingers, and prescribed a gentle laxative.

The

The effect of the blister was decisive: as soon as it produced an effusion, the fits left him. Some irregular feelings were afterwards perceived in the fingers, but there was no approach towards another paroxysm.

A day or two after the application of the blister, he complained of a slight head-ach, and as his pulse was very full and strong, I ordered him to lose twelve ounces of blood from the left arm. This, with a low diet, and attention to his evacuations, completed the cure, and I believe he has now remained well for near two years.

Might it not be useful, in cases of the Aura Epileptica, to apply blisters near the place where the principal nerves, which go to the part affected, divide?

AN UNCOMMON SPASMODIC CASE, SUCCESSFULLY TREATED.

E. W. a girl of thirteen, had an eruption over the whole surface of the skin, of an herpetic character, and exquisitely sore. She complained also of violent pain in her stomach, which seized her at uncertain times, and was always followed by general convulsions, about the commencement of which her jaws became locked, and could not be separated till the close of the paroxysm. The duration of the fits was very unequal; generally about three or four hours; but sometimes a succession of them would happen for twenty-four hours, with hardly a perceptible interval.

I gave her small doses of opium, frequently repeated, during her intermissions,

missions, but without effect. Her jaws locked so speedily after the beginning of the fit, that no medicine could be introduced into the stomach during its continuance; and it was evident, that the only hope of a cure rested on preventing the accession, by remedies exhibited at the first signs of its approach. I therefore directed her mother, on the appearance of languor and uneasiness which preceded the pain, to make her swallow a pill, composed of half a grain of opium, two grains of musk, and two of camphor; and to repeat the dose every quarter or half hour (to a certain extent) according to the progress of the fit. After some fruitless trials, in which five grains of opium were given before the jaws locked, finding the patient sink very fast under intolerable and almost constant agony, I determined to try the effect of the combination in its full extent. At the approach of a fit (the

intermissions of which scarcely allowed her time to receive any food) ten grains of opium, a scruple of musk, and a scruple of camphor were thrown in. The consequence was, that the pain was immediately relieved; the jaw did not fix: and the convulsions ceased. The irritation on the surface was so great, that she had very little sleep during the night; and next day the usual signs of a fit appeared, but an equal dose of the pills being administered, the threatening symptoms went off, and left her tolerably easy. After several repulses of this kind, the tendency to renew the paroxysms gradually ceased, and the opiate was proportionably diminished. The eruption decayed in the same proportion with the fits; and in a shorter time than I had expected, her skin was entirely clear, and she was able to work as usual.

I have occasionally inquired after her, and found that she has continued perfectly

fectly well. It is now two years from the attack.

It was very remarkable, that while she used so large a quantity of opium, the effects of which were so powerful on the system, she never slept above four or five hours together, and then only in the night. I have observed the same circumstance in other cases, where opium has been extensively employed. And I believe that, with prudence and attention in augmenting the doses, the fullest benefits may be derived from that remedy, without danger or inconvenience.

It must be observed, however, that fatal consequences have sometimes followed the large exhibition of opium. See a remarkable case in Dr. Percival's Essays Medical and Experimental, vol. I. p. 421. When such doses are continued for a length of time, it is always proper to interpose a laxative

once in two days, and where the symptoms are not very urgent, to intermit the use of the opium for twelve or twenty-four hours. The state of the pulse, and every circumstance indicating the state of the vital functions, must be carefully attended to, during such a course; and the practitioner must always remember, in such cases, that while a proper degree of boldness is necessary to effect a cure, temerity may produce an irreparable evil.

REMEDIES OF DROPSY.

I do not remember to have seen any comparison instituted among the various methods of reducing the swellings, by increasing the quantity of urine in this disorder. The whole tribe of diuretics is acknowledged to be uncertain, and often to disappoint the

the most rational expectations. Practitioners are therefore perpetually in search of new remedies belonging to this class, and are too apt to over-rate the value of such discoveries. An appreciation of the diuretics we already possess would perhaps be more serviceable to medicine, than the addition of any single article of this kind. The following cases contain some facts of this nature, respecting a few of the principal remedies employed in dropsy. A series of observations, continued on the same plan, may perhaps introduce, if not a more successful, yet a safer mode of practice in this formidable disease.

DIGITALIS.

HISTORY I.

Sarah Irlam, upwards of sixty years of age, became gradually anasarcous,

and when I saw her first was so much swelled, as to be totally unwieldy. Her urine was very scanty. She took one grain of digitalis, and in the course of a few hours voided a great quantity of urine. She took another grain next day, which retarded her pulse, and occasioned violent sickness. The swellings were completely reduced in three or four days.

HISTORY II.

John Wilson, aged twenty-eight, had both ascites and anasarca. His belly and legs were excessively distended, and he had a tormenting cough and dyspnœa. He took one grain of digitalis daily. His urine increased in quantity but slowly. He then took a grain and half every day, which produced a large flow of urine, steadily supported, and cured him perfectly, to all appearance, in the course of a fortnight. He will be heard of again.

HISTORY

HISTORY III.

Elizabeth Hall, aged thirty-one, had become anasarcous by slow degrees, and the swelling began to make considerable progress. She took half an ounce of the infusum digitalis twice a day, without any considerable effect at first; I then interposed a grain of gamboge and half an ounce of cream of tartar, once or twice a week, according to the quantity of urine; continuing the digitalis on the other days. The urine now flowed largely; the swellings receded, and left her entirely in less than three weeks.

HISTORY IV.

John Dawson, aged fifty-five, affected with ascites and anasarca, took one grain of digitalis every day. He was cured of his dropsy in the course of a month, and no complaint remained but

but a cough, which was removed in a few weeks by the common pectoral medicines.

HISTORY V.

James Heys, aged twenty-seven, was received into the hospital, with anasarca and ascites, excessively swelled, and voiding very little urine. He took one grain of digitalis daily, which promoted a great discharge of urine, and he went out perfectly cured in three weeks.

HISTORY VI.

Elizabeth Atherton, aged nineteen, was affected with a considerable degree of anasarca, and an incipient ascites. She took digitalis in increasing doses, to the extent of four grains a day; once or twice a week, a purgative composed of gamboge and cream of tartar, in the proportions already mentioned, was

was interposed. She was cured in the space of two months.

HISTORY VII.

Ellen Farrar, admitted, April 11, 1791, aged nineteen, had anasarcous swellings of the lower extremities, and a scarcity of urine. She complained likewise of oppression at her breast, of disturbed sleep, and some degree of orthopnæa. She took one grain of digitalis daily, and occasional doses of gamboge and cream of tartar. She was discharged, cured, on the twenty-fifth of May.

HISTORY VIII.

Margaret Dewrden, aged nine, was admitted, August 8, 1791. The abdomen was greatly distended, and a strong fluctuation was felt on percussion. Her urine was very scanty, her thirst great; with a white tongue, and hurried

hurried pulse, and a teizing cough. She began immediately to take a grain of digitalis every day, in an ounce of infusum gentianæ compositum. The urine increased in a day or two, and continued, for six weeks, to flow largely; her swelling decreased, and she had from two to three stools daily. She was discharged, cured, in the following December.

HISTORY IX.

Elizabeth Bailey, aged twenty-five, was one of the unfortunate persons on whom a large manufactory fell, in winter, 1791. She received a severe blow from a large piece of timber, on the left side of the chest, and was otherwise bruised, in consequence of which she was under the care of a surgeon for some time. When I admitted her on the thirtieth of May, her legs and feet were much swelled; she

she was thirsty, had a cough, and was subject to orthopnœa, particularly in the night. Her sleep was broken; she often complained of oppression and pain in her breast, and of pain about the middle of her left arm, which was always aggravated, when her breast was most uneasy. Her face, at such times was slightly œdematous. Her urine was diminished in quantity. On the third of June, she began to take one grain a-day of digitalis. Her swellings then lessened, and her urine, in general, was much increased. A violent head-ach made blisters behind the ears necessary, on the fifteenth of June; and the pain in her side and left arm became so troublesome, on the third of July, that a blister was then directed to her side. And as she complained of costiveness and flatulence, which even produced the globus hystericus, about the end of June, the stomachic or fœtid pills were occasionally given

given, and a vomit was once directed. But the use of the digitalis was steadily pursued without augmentation, till the twenty-second of July, when all her symptoms were so much mitigated, that I consented to her desire of leaving the house. The swellings were completely reduced, and the pains little, if at all troublesome. I believe she has since relapsed.'

HISTORY X.

John Rowbottom, aged sixteen, was admitted on the seventh of March, 1791. His complaint was of considerable duration. The belly was much enlarged, with a sensible fluctuation; the legs and feet anasarcous, and the face œdematous. His urine was deficient, his tongue white, and his thirst excessive. A florid circumscribed redness of the cheeks, accompanied him through the whole disease, and

and he complained of a cough. But his pulse was tremulous and jarring in a most extraordinary degree, and finding, on inquiry, that he had been long subject to distressing palpitations of the heart, I examined its motion with attention. On applying my hand to the usual place, I found a great expansion of the pulsation every way: the apex could be felt distinctly to strike between the eighth and ninth ribs. He now told, that the palpitations had preceded the swellings; that he had often felt pains striking across his breast; and had sometimes discharged a little blood by the mouth. He was put upon a course of digitalis, beginning with a grain a day, and two days afterwards was ordered the usual dose of gamboge and cream of tartar. This did not operate, and I found it necessary to give four grains of gamboge and half an ounce of cream of tartar, which purged him from four to six times.

times. Half the quantity of gamboge answered afterwards. No remarkable benefit was derived from his medicines for some time. His habit was very costive, and the purgavive was so often required, that the regular use of the digitalis was not begun till the middle of April. His swellings then began to give way; he took at last two grains daily. On the fifth of June, he was almost entirely emptied; and was then made an out-patient, at his own earnest request. The dilatation of the heart did not seem to proceed with much rapidity. Little difference could be perceived in it, when he left the house. On the fifteenth of September, he applied to me again, and was re-admitted. His swellings were now much greater, and his difficulty of breathing was very harrassing; the scrotum was distended to such a degree, that the penis was almost buried. His urine was again scanty. The heart now seemed more dilated,

dilated, and the pulsation felt more remote. His scrotum was immediately scarified very gently, and the following bolus was ordered to be taken at bed-time;

℞. Pulv. Scill. arid. gr. v.
—— Jalap. gr. vi.
Calomel. gr. ii. Conserv. Ros. q. s. M.

On the sixteenth, his scrotum was reduced by draining, and his urine was increased. The bolus had purged him thrice. He was every way easier. On the seventeenth, the small incisions on the scrotum were healed; but as his urine flowed still more freely, I trusted to the bolus, which had been given every night, and generally produced about two stools in twenty-four hours. His swellings then abated, and his legs and scrotum were completely emptied.*

* For the event of this case, see, *Dilatation of the Heart.*

HISTORY XI.

Ellen Wyatt, aged fifty-eight, was admitted on the fifteenth of August, 1791. Her abdomen was distended, and a fluctuation was perceptible. Her urine was scanty. She was ordered the digitalis in the usual manner, with the interposition of the pulvis purgans. She now took two grains of digitalis a-day, her urine increased, and the swelling of the belly was very sensibly lessened. On the fifteenth of September, she complained, for the first time, of swellings in her legs. She was then again ordered the pulvis purgans. On the twenty-second, the swellings of the legs were gone, but she complained of frequent sickness and lassitude, and her pulse was much slower. The digitalis was therefore omitted, and the bark electuary ordered in its stead. On the twenty-ninth, she was more swelled, and her urine was more scanty. She was

was again ordered a dose of the pulvis purgans, and one grain of digitalis a day. She was afterwards put on a course of cream of tartar, sometimes in solution, sometimes combined with gamboge, and is now much better.

HISTORY XII.

James Lees, aged fifty-three, was admitted with ascites and anasarca, on the twelfth of September, 1791. He was ordered one grain a-day of digitalis, and as he was much emaciated, the bark was joined to it. On the nineteenth, his urine was increasing. He was then ordered two grains of digitalis daily; his urine flowed in considerable quantity, his swellings were lessened, and he was discharged, cured, on the twenty-fourth of October.

HISTORY XIII.

John Wilson, whose first attack was narrated in history the second, applied

to me again, on the fifteenth of June, 1790. His swellings were now as great as ever, and his countenance denoted greater anxiety. I gave the digitalis again, in such doses as to produce a strong narcotic effect, without being able to increase his urine. A variety of other diuretics, tried in succession, proved equally unsuccessful. The event of the case I do not know, for he was soon removed to the workhouse.

HISTORY XIV.

William Williams, aged sixty, admitted February second, had been ill for some time. He was afflicted both with anasarca and ascites. He made very little water; his countenance was cadaverous, his pulse low; and he often complained of pain in his right side, striking upwards to the top of the right shoulder. He took the digitalis in increasing doses, without any effect, for

for some weeks. When he took four grains a day, his pulse was rendered sensibly slower, and he became very drowsy. I therefore stopped at that quantity, and continued the same dose every day for a week longer. But the narcotic effects were so continued, that I durst go no farther. His urine was never increased by it. The sequel of this case comes under another remedy.

HISTORY XV.

Betty Williamson, aged thirty, admitted Nov. 9, 1789, was anasarcous in her lower extremities, and there was reason to fear the approach of ascites. She had a violent cough, and a large expectoration, which had some appearance of pus. She took the digitalis as usual: it produced in a few days, violent sickness and vomiting, but did not lessen her swellings. I therefore discontinued its use.

HISTORY XVI.

Ellen Jones, aged sixty, admitted in March, 1789, was anasarcous, with the usual attendance of cough and thirst. She took the digitalis, like the rest, for a month, without any sensible difference in the state of the urine or swellings.

HISTORY XVII.

Job Bowers, aged thirty-seven, admitted Dec. 27, 1790, of a cachectic appearance, was affected with ascites and anasarca, attended with the usual symptoms. He began with a grain of digitalis, and proceeded to two grains a day, which he continued to take during a fortnight, without relief. It was then discontinued.

HISTORY XVIII.

William Waters, aged twenty-three, was admitted on the twenty-sixth of September,

September, with an incipient ascites. He took the infusum digitalis, to the extent of five or six spoonfuls a-day, by a gradual augmentation. This quantity brought on a large flow of urine, and his belly diminished. He was much emaciated, when I first saw him, and had a caries in the bones of the carpus of the right hand. In the middle of October, he was attacked with feverish symptoms, and complained of a sore throat. On inspection, a dark-coloured inflammation appeared in the fauces. He was ordered bark, and astringent gargles, and soon got better; but he looked extremely ill, his belly filled again, and his lower extremities became anasarcous. The digitalis was now repeated, and a tonic course joined with it. His urine again flowed largely, but the swellings were not lessened. In the beginning of November he was attacked by a sudden pain in his bowels, on which the former course was

suspended, and opiates were given. The pain went off in the course of the day, and the swellings disappeared. But a few days afterwards, his right thigh became erysipelatous, and in spite of the liberal use of bark and wine, the affection extended to the groin, and ended his existence on the eleventh of November. I could not obtain leave to inspect the body.

HISTORY XIX.

Mary Rowley, aged thirty, admitted February 12, 1791, had the usual signs of ascites. She took two grains a-day of digitalis for near a fortnight. She grew worse, and the remedy was dropped.

HISTORY XX.

Mary Sudwoth, aged twenty-one, admitted March 14, with evident symptoms

toms of ascites and anasarca, took two grains of digitalis a-day, for a week, but became worse, and the course was changed.

HISTORY XXI.

Elizabeth Oldham, aged forty-eight, admitted June 20, 1791, with ascites, took the digitalis with the pulvis purgans, in the manner already described. She found no relief, and in a month the remedy was discontinued.

HISTORY XXII.

Elizabeth Williamson, aged sixty, admitted July 11, 1791, ill of ascites, was ordered the digitalis and pulvis purgans as usual. She took them for a fortnight, but without benefit.

HISTORY XXIII.

George Newton, aged seventy, admitted January 24, 1791, with ascites and

and anasarca, took the digitalis as usual. His urine did not increase; but symptoms of gangrene appeared in the lower extremities, and he died on the thirtieth of the same month. On dissection, the abdomen was found full of water; the liver appeared soft and pale; the pleura, on the surface of the lungs, bore marks of inflammation, and adhesions were formed to the parietes of the cavity: there was a considerable quantity of water in the thorax.

HISTORY XXIV.

William Taylor, aged nineteen, admitted May 30, 1791, with ascites and anasarca, was so much loaded with water, as to be in constant danger of suffocation. He was put on a course of the pulvis purgans and digitalis, but without effect. The accumulation increased; his cheeks and lips became livid;

livid; and it was necessary to tap him, to prevent instant death. Accordingly the operation was performed on the third of June, and a very large quantity of water drawn off. He appeared somewhat easier the next day, but languid. He began to fill again; mortification took place in the scrotum, which was greatly distended; and he died on the seventh of June.

I have no notes of the dissection, but I recollect that the liver and kidneys were greatly diseased. The chest was full of water. A singular circumstance attended the operation, of which I have prevailed on Mr. Simmons, the operator, to draw up an account. It follows, in his own words.

"I tapped William Taylor for an "ascites, at the request of Dr. Ferriar, "in the usual part of the abdomen; "carefully examining the part where "the

"the trocar was to be introduced, "to avoid wounding any considerable "blood-vessel. A large quantity of "watery fluid was evacuated, and to- "wards the conclusion of the discharge "it was tinged of a reddish colour. "On withdrawing the canula, I was "much alarmed with the appearance "of a considerable flow of blood, "expecting no less than the immediate "death of my patient, from his very "debilitated state previous to the opera- "tion. The colour, however, resem- "bled that of venous blood, and I "found the effusion was stopped by com- "pression. Styptic applications were "therefore made, and the compression "was continued for some time, which "had the desired effect.

"On inspecting the body after "death, which happened in a few "days, I had the satisfaction to find, "that not the smallest quantity of "blood

" blood had been poured out into the " cavity of the abdomen; and that " neither inflammation nor gangrene " had come upon the wound from the " use of the astringent application. " The cause of the hæmorrhage was " now apparent. The epigastric artery " with its accompanying vein running " out of their usual course, the latter " had been divided, and so near to the " former, that there was not more " than the space of a line between the " wound made by the trocar and the " coats of the artery.

" This case has induced me to think " the operation of the paracentesis of " the abdomen not so trifling as it is " generally believed to be; and the " late observations on this subject by " Dr. Smith and Mr. Ford, contained " in the second volume of the Medical " Communications, corroborate opinions " I had formed previous to my seeing " that publication.

" Chirurgical

"Chirurgical writers have differed "considerably in their opinions of the "proper part for making the puncture "in cases of ascites. Celsus recom- "mends the water to be evacuated "at the navel, or nearly four fingers "breadth below it, inclining to the "left side, and when performed in the "latter manner, he advises it to be done "with circumspection, lest a blood- "vessel should be opened.

"Succeeding writers deviated from "this ancient practice, and made the "puncture, when below the navel, "either on the right or left side, and "at the distance of the breadth of "three or four fingers; and, sometimes, "at the same distance immediately be- "low the navel. Deviations from these "modes of practice have been intro- "duced by the more modern surgeons; "for some, apprehending the ancient "practice to be laid down without

"attention

" attention to the distended state of the " cavity of the abdomen, recommend " it to be done at the distance of seven " or eight fingers breadth, descending " obliquely from the navel, which they " say will not be more than equal to " four when the belly is returned to its " natural state. This seems to agree " with the directions given by chirur- " gical writers of the present day, who " order the opening to be made midway " between the spine of the ileum and " the umbilicus.

" As the present mode of practice is " liable to such serious consequences, " and is recommended early in the " disease, not only to relieve present " distress, but with a view to aid the " power of internal remedies, it becomes " of importance to the art of surgery, " if possible, to amend it.

" The

"The fluid has been evacuated at "the navel, only when there has been "a particular swelling there, and an "evident fluctuation under the thin "integuments.

"It has been performed at the dis- "tance of four fingers breadth from "the navel, on the right or left side, "as circumstances indicated, to avoid "the recti muscles; but in the dis- "tended state of the abdomen it would "nearly get into them, and, there- "fore, do just the reverse of what "was intended. From particular opi- "nions respecting the disease, it was "proposed by Albucasis, Avicenna "and others to make the opening at "the same distance directly below the "navel; but this was afterwards dis- "carded from physiological opinions "respecting the nature of tendons. "From the most attentive considera- "tion I am able to give the subject,

"I am

"I am, notwithstanding, of opinion "that this is the part in which it "ought to be performed. In this way "common integument, tendinous ex- "pansion, and the peritoneum only, "are, in all probability, divided; and "in the present mode, if rightly per- "formed, I think also no other parts "are divided, for I agree with Le "Dran that the middle space between "the navel and the crista of the os "ileum which is exactly between the "fleshy part of the oblique and trans- "verse muscles, or what we call the "linea semilunaris, ought to be the part "perforated.

"In the case related, the puncture "was made in this part, upon the edge "of the above-mentioned muscles.

"The epigastric artery comes off "anteriorly from the external iliac, "and running obliquely upwards,

"reaches the posterior part of the "rectus muscle, about two or three "fingers breadth above the os pubis, "in the direction of which it is con- "tinued till it forms an anastamosis "with the mammaria interna. This "is its usual course: but as nature is "often sportive in the distribution of "arteries, it is adviseable to guard "against her incidental variations as "much as we can. Now we know "from experience, that it sometimes "does run in the part where the trocar "is usually introduced. And the part "itself must somewhat vary, according "to the opinions of different men, the "language not being absolutely defi- "nitive. But, if it is performed in "a direct line, at a given distance "below the navel, every man of com- "mon sagacity must perform it with "the greatest exactness; and I do not "know of the artery ever having been "observed exactly in that direction.

"It

"It is said that the wound heals "better, if the perforation is made "where there are some muscular fibres; "but if there is sufficient muscle to "expedite that process, there must also "be blood-vessels, which being opened, "might occasion the loss of more blood "than a patient under such circum- "stances could bear. And, besides, "from the authorities above quoted, "as well as that of Fabricius ab Aqua- "pendente and our own knowledge, "much need not be apprehended on "that account.

"I propose then, that the operation "shall be performed in this part in "preference to that where it is usually "done, in all cases where there is a "general distention of the cavity of "the abdomen from a watery fluid, "and there are no symptoms to war- "rant an opinion of any of the viscera "being so much enlarged as to be in

"danger of injury from the instru-
"ment."

CREAM OF TARTAR.

I have always directed this remedy to be given in Dr. Home's method: from half an ounce, dissolved in ten ounces of water, to an ounce, or an ounce and a half daily.

HISTORY XXV.

Mr. C. about forty years of age, consulted me for a complaint in his breast. He was sensible of constant weight and oppression; he slept ill, and frequently awaked in terror; he had a slight cough; his breathing always became difficult, when he walked up an ascent; his urine was scanty; and he had, at times, a pain about the middle of the left arm. His legs were slightly

slightly anasarcous; his face was œdematous, and his countenance anxious. He was thirsty, and had a frequent, irregular pulse. I ordered him the cream of tartar, to be taken next morning. I saw him in the afternoon of the next day, and found that his urine had increased from about half a pint in the day, to a pint and half. He staid in town a day or two longer, that I might observe the effect of the medicine, and finding his urine flow more and more freely, he returned to the country, with a resolution to try the plan with perseverance. He had used a variety of medicines before, without any advantage. I heard from him often, and for several months received accounts of a gradual amendment. His urine, for some time, came off in greater quantity than natural; afterwards it returned to its usual state. All his uneasy symptoms disappeared, and, as he wrote me, after being un-

able to creep above a mile, he could now walk three or four miles, over any kind of ground, without inconvenience. This agreeable change continued for near twelve months, but at the end of that time, his symptoms returned. He had recourse again to his cream of tartar, but I do not know with what immediate effect. I heard of his death soon after.

HISTORY XXVI.

A poor woman, who had become dropsical and asthmatic by hard labour and ill usage, applied to me in 1788. I have no notes of the case, but I remember that she took the cream of tartar, and that her swellings were, for the time, entirely removed.

HISTORY XXVII.

Peter Nield, aged forty-five, admitted November 11, 1789, was anasarcous. He

He took the cream of tartar, and soon began to void a large quantity of urine, and to perceive a decrease of the swellings. As the medicine operated much by stool, however, he became very feeble, and I found it necessary to support him liberally, at the same time, with tonics. He was discharged, cured, in a few weeks.

HISTORY XXVIII.

Thomas Mather, aged twenty-five, was affected with erysipelas and swelling of both legs, in October, 1791. When the eruption went off, he began to swell generally. At the commencement of my attendance, November eighteenth, his legs were excessively distended, his belly was very large, and his face œdematous. He had taken some purges of jallap with mercury, and felt somewhat easier, but his swellings were increasing. I ordered him the

cream of tartar. Next day, he had several watery stools, and his belly was less. On the twenty-second he continued to have four or five watery stools a-day, he passed more urine, and his belly was fallen in circumference several inches. He now walked about with ease and alacrity. On the twenty-seventh, he had only one or two stools in the day, and made but little water, yet his swellings continued to decrease. The cream of tartar was therefore increased to six drachms a-day. It seldom produced above two stools a-day; his swellings went entirely off, and he was able to go to work again on the thirteenth of December.

He relapsed from imprudence, and came under my care again in the course of a few weeks. He recovered by a repetition of his medicine.

HISTORY XXIX.

Catherine Duny, aged twenty, admitted about the beginning of January, 1790, had ascites; and towards evening, had some degree of swelling in her ancles. She was put on a course of cream of tartar, and was discharged, cured, in three weeks.

HISTORY XXX.

Ann Wagstaff, aged twenty-five, anasarcous, admitted January 25, 1790, took the cream of tartar, and was dismissed, cured: my notes do not shew at what time.

HISTORY XXXI.

John Hopwood, aged forty-eight, had been subject for several years to severe pain in the head, and occasionally to giddiness. About a year before he

he consulted me, he began to complain of a dry cough, which increased till the beginning of winter, 1791, when I saw him. His legs were then much swelled, and pitted on pressure; his abdomen was considerably enlarged, with a considerable degree of fluctuation; his urine was scanty, he complained of thirst, and had a very troublesome orthopnæa. I put him on the use of cream of tartar. In three days, he made half a pint of urine more in the day, and his swellings decreased. At the end of a fortnight, the swellings were nearly gone, the cough and orthopnæa greatly relieved, and every appearance promised a cure. But the pain in his head, which had been easier for some time, suddenly returned, and he became blind. At the same time, his extremities were affected with a degree of paralysis. He was now so much discouraged, that he refused to take any more medicines, and sunk by degrees

degrees till he expired, with a livid countenance, and every mark of an oppressed brain. I could not obtain permission to inspect the body.

HISTORY XXXII.

Elizabeth Monk, aged forty-five, had a dry, vexatious cough for above three years. She had so great a degree of orthopnæa, that she was commonly unable to lie down in bed; her urine was scanty; her face often swelled, and at such times her cough and difficulty of breathing were most troublesome. She often felt an uneasy tingling in her left arm and hand. There was a strong expression of anxiety in her countenance. I ordered her the cream of tartar, which produced four or five loose, watery stools a-day, and an almost immediate increase of urine. Her symptoms were gradually relieved, and at the end of a month, she

she is free from every complaint, excepting some degree of cough.

HISTORY XXXIII.

Jeremiah Wood, aged forty-two, admitted April eighteenth, anasarcous, took cream of tartar without any sensible advantage. He died on the twenty-sixth of the same month.

On dissection, the chest was found full of water, the lungs adhered strongly to the left side of the thorax, and the pericardium was firmly united to the heart.

BACHER'S TONIC PILLS.

I believe practitioners in this country have had little experience of this remedy. Dr. Cullen says, in his Materia

teria Medica, that he had never heard of any person who thought well enough of the formula to use it. Prejudice, however, is never to be encouraged: in the scarcity of good diuretics I have been induced to employ this highly recommended formula, and have found no reason to think lightly of it.

HISTORY XXXIV.

William Williams (see History XIII.) after discontinuing the digitalis, began to take nine of the tonic pills daily. They produced an immediate flow of urine, and several watery stools every day. His belly diminished considerably in size, but his legs, during the course of digitalis, had become so much distended, that a rupture of the skin took place in each, and the water drained away in great quantities. He now emptied a-pace, but grew weaker from

from day to day. The pills were continued, but a quantity of wine and of tincture of bark was allowed, sufficient to support his pulse, and the pills were managed so as to prevent any considerable purging. The openings in his legs preserved a healthy inflammation round their edges; but no art could relieve the languor occasioned by withdrawing the pressure of the water; and he died as soon as he was nearly freed from the swellings.

HISTORY XXXV.

Sarah Hartley, aged twenty-nine, came under my care, after she had been during three months the patient of another physician. She was affected with ascites and anasarca; her urine was scanty; and her countenance was livid. She took six of the tonic pills daily; they produced an increase of urine,

urine, and in three weeks occasioned a considerable diminution of the swellings. But she became languid, her strength seemed to decay with the disease, and on December second, she was seized with a looseness, at the approach of which the pills were laid aside. Astringents and opiates were now employed, but to little purpose. The Diarrhæa was attended with a fixed pain in the bowels. She sunk gradually, and died December 6, 1790.

On dissection, some turns of the ileus were found affected with a dark red inflammation. The liver was soft and pale; the kidneys were enlarged, and suppurations appeared in the pelvis of each. There was water in the chest, and adhesions were formed between the pleura and the surface of the lungs.

HISTORY XXXVI.

Alice Wrigley, aged fifteen, was admitted, May ninth, with anasarca, and an incipient ascites. She took three of the tonic pills thrice a-day. They increased her urine to a considerable quantity; the swellings abated, and she was discharged, cured, on the sixteenth of the following October. Her attendance had been irregular.

HISTORY XXXVII.

Anne Waring, aged twenty-three, had ascites and anasarca. She took fifteen of the tonic pills every day, which produced a great increase of her urine, and she was discharged, cured, in four months. She had been very irregular in taking the medicine, and once absented herself from attendance, and

and relinquished the use of the pills, for three weeks together.

HISTORY XXXVIII.

Betty Clay, aged forty-six, had ascites. Her urine was very scanty. She took for eight months, thirty-five drops of spiritus ætheris nitrosi, thrice a-day, with the effect of an increase in the quantity of urine, and a slow abatement of the swelling. But this effect at length ceased, and her legs began to swell. I then ordered the tonic pills. When she began to take fifteen a-day, her urine again flowed largely, and the swellings were reduced. She then took twenty pills daily, with a farther abatement of the symptoms. At present, the swelling of the abdomen is nearly gone, and her only remaining complaint is a troublesome cough.

HISTORY XXXIX.

Job Bowers (History XVIII.) took the tonic pills, for some time after the digitalis was given up, but without relief.

HISTORY XL.

Mary Winterbottom, aged fifty-eight, admitted August 15, 1791, with ascites, began to take twenty of the tonic pills every day. The effects were a considerable increase of urine, and many watery stools. She diminished in size very regularly, and was discharged, completely cured, on the eighteenth of October.

PULVIS DOVERI.

This remedy has been used with success in dropsical cases, by Dr. Hamilton

milton of Edinburgh; some instances of which I saw, during my attendance on him at the Infirmary of that city.

HISTORY XLI.

William Kay, aged twelve, admitted November 9, 1789, had become anasarcous in consequence of exposure to cold. He was ordered to use the pediluvium, and afterwards to take a scruple of Dover's powder. The first dose did not succeed, owing to some mismanagement of the patient. A second dose was given, which sweated him profusely, and reduced his swellings. He was then directed to take the bark, and was discharged, cured, in less than a week.

GAMBOGE WITH CREAM OF TARTAR.

HISTORY XLII.

Job Bowers (History XVIII. and XXXIX.) when oppressed with ex-

treme difficulty of breathing, took from one to two grains of gamboge, with half an ounce of cream of tartar, every two or three days. It always produced from four to six watery stools, lowered his swellings, and relieved his breathing. Whenever the exhibition of his purgative was delayed beyond the usual time, all his symptoms were greatly aggravated. At length, however, his urine was totally suppressed, which was soon followed by death. I did not obtain permission to open the body.

GAMBOGE WITH MERCURY.

HISTORY XLIII.

Hannah Wolstenholme, anasarcous, took six grains of calomel, with one grain of gamboge, twice or thrice a-week, according to the degree of evacuation

evacuation produced. It increased the quantity of urine immediately, and she was completely well in a fortnight.

CALOMEL WITH SQUILLS.

HISTORY XLIV.

Thomas Jelly, aged thirty-eight, was admitted August 15, 1791. The abdomen was greatly distended, with evident fluctuation, and his lower extremities were anasarcous. He passed very little urine; had a constant difficulty of breathing, dry cough, and a tormenting thirst. He took some of the common diuretics,* without relief, till the twentieth. He was then ordered the pulvis purgans, which gave him some motions, but did not increase

* P. Digitalis among the rest.

his urine. On the twenty-second he was ordered the following bolus:

℞. Sapon. Hispan. ℈i.
Pulv. Scill. Arid. gr. x.
Calomelan. gr. iij.
Opii gr. j.
Conserv. Ros. q. s. Misce.

This increased his urine immediately, and purged him gently. Between the twenty-third and twenty-eighth, he sometimes passed upwards of three quarts of water in twenty-four hours. At the latter period, the purgative effect was so far lost, that it was necessary to order him the pulvis purgans. His mouth now became affected, and on the thirty-first, at which time he had taken exactly twenty-one grains of calomel, his gums and the inside of the mouth were ulcerated, and a spitting came on. He was then much reduced in size. On the thirty-first his bolus was repeated, without the calomel. While the ptyalism lasted, his

his water came off freely, but when his mouth began to heal, the quantity decreased, and the swellings returned. At this period his appetite was voracious to such a degree, as to make him uneasy in his mind. He spoke of it several times with anxiety. On the eighth of September, his mouth was well, and he was nearly as bulky as ever. The calomel was therefore again added to the bolus; he was allowed porter, and put upon full diet. On the sixteenth he had taken seven boluses, containing exactly twenty-one grains of calomel. He had always been purged at least three times a-day by the bolus, and had parted with great quantities of water. His mouth was now very sore, again: the bolus was therefore omitted; and in two days, a considerable degree of salivation took place. But the swellings of his legs were completely removed, and his belly was reduced very nearly

to its natural size. On the twenty-third his mouth was still extremely sore, and as the weather became cool, he was ordered the electuarium e sulphure. On the twenty-seventh, his mouth was somewhat easier, but he still spit much, and was very weak. He was then allowed four ounces of wine a-day, in addition to his porter.

On the thirtieth, he was seized with a violent looseness, the spitting decreased, and his belly enlarged again. The urine was now much less in quantity. He was ordered astringents with laudanum. The next day, his purging was stopt, and the abdomen so far returned to a natural state, that though it appeared full, he could retract it as completely as a man in health usually does. His mouth was perfectly well in a few days, but he continued weak. In the first week of October, he was seized with a violent cough, and

and complained of universal pains. The looseness returned, and his belly increased again in size. On the tenth, he was so much altered that it was evident death was approaching. He complained that his stomach would retain nothing; his pulse became low, and faltering, and he had frequent cold sweats. On the eleventh, he was insensible, and seemed to be dying, but he lingered in that state, till the morning of the thirteenth, and then expired.

The body was opened next day. A quantity of water was found in the cavity of the chest, chiefly, on the right side. The right lobe of the lungs adhered strongly to the pleura, and there were marks of inflammation on its surface. There was an adhesion also on the left side. The pericardium contained a good deal of water, and adhered to the forepart of the right ventricle; the heart was larger than natural.

A great

A great quantity of clear, brown-coloured water was found in the abdomen. The liver was enlarged, hardened, and disposed to scirrhosity. The pancreas was indurated, and altered in its texture. The stomach was uncommonly small, and the blood-vessels on both curvatures were much distended; near the cardia, it was eroded by the gastric juice. The omentum was preternaturally red. Several turns of the ileus appeared discoloured, and on opening them, the villous coat was found greatly inflamed. This inflammation was traced into the transverse arch of the colon. The spleen was sound: the left kidney was larger than natural, but otherwise sound. The right kidney was in a natural state.

NICOTIANA.

HISTORY XLV.

Mary Coxe, aged twenty-nine, complained of pain and swelling on the left side of the abdomen; of thirst, and scarcity of urine. On examination, a large tumor on that side appeared, extending from the spine of the os ileon, almost to the ossa pubis. The edges were well defined, but the surface, though unequal, was yielding, in some degree, and gave the impression of a contained fluid. Before I saw her, she was ordered from twenty-five to thirty drops of the infusum nicotianæ twice or thrice a-day, with a purgative electuary, composed of gamboge, jallap and cream of tartar. This increased the quantity of urine, but produced no effect on the swelling. I ordered a drachm

a drachm of the unguentum cæruleum to be rubbed into the groin and thigh on the side affected, every other night, and twenty-five drops of spiritus ætheris vitriolici to be taken, four times a-day, omitting the former medicines. In the course of four or five days, there was a sensible abatement of the swelling, and her urine continued to flow freely. The spiritus ætheris vitriolici happened to be omitted, for some reason, and she found herself worse. It was then repeated, and again relieved her. She was much better, when she left Manchester, with the regiment to which her husband belonged.

HISTORY XLVI.

Job Bowers (History XVIII. and XXIX.) took the infusum nicotianæ, after omitting the tonic pills, for several days, in such quantities as to produce

produce violent sickness, without any diuretic effect.

HISTORY XLVII.

James Johnson, aged twenty-three, admitted August 15, 1791, excessively distended with ascites and anasarca, after trying some other diuretics, took the infusum nicotianæ in the quantity of eighty drops in twenty-four hours, for three days together. It produced sickness, but no increase of urine. Fifteen grains of jallap, and two drachms of cream of tartar, given at bed-time, vomited him briskly, and reduced the swellings for a time. But no increase in the quantity of his urine could be produced, by the most powerful diuretics, given in large doses, till the end of September, when he took, after a gradual augmentation, one hundred and twenty of the tonic pills in one day. His legs had previously begun to discharge, but without diminishing

diminishing the size of his belly. Though he passed more urine, while he took largely of the tonic pills, yet the quantity was not uncommon; more water seemed to be discharged by stool, than by the urinary passages. On the ninth of October, his abdomen was considerably reduced, but a considerable degree of vertigo had succeeded the last dose of the tonic pills; they were therefore omitted, and some wine prescribed. Thirty drops of spiritus ætheris vitriolici were likewise ordered to be given four times a-day. On the tenth, pain in the bowels and a diarrhœa came on; and the vitriolic spirit was omitted. Opiates and astringents were now given, but with little success. The purging continued violent, till the twenty-sixth. It then went off, leaving him greatly exhausted, but nearly free from anasarca, and much lessened in the size of the abdomen. The cerevisia diuretica was ordered

ordered on the twenty-eighth, joined with a cordial and tonic course, and full diet. But as his urine again decreased, and he began to fill afresh, on the fifth of November, he was ordered three grains of digitalis, which, on the seventh, were augmented to four. Time was not allowed, however, to experience the effect of this course, for he was desirous of returning to his native air, and I dismissed him, much relieved, but with little prospect of being ultimately cured.

This is the only case, in which I found the tonic pills affect the head; but there seemed a peculiar insensibility in this man's constitution to the stimulus of diuretics, and it was necessary to exhibit them in very strong doses.

HISTORY XLVIII.

Mary Rules, aged one year and a half, had the abdomen distended with water,

water, to an excessive degree. I ordered a laxative, to obviate costiveness, and a few days afterwards she was tapped. A great quantity of water was drawn off, and the child appeared easier. Next day, however, she died.

On opening the body, we found the intestines much inflated; the liver was enlarged; but the principal disease appeared in the kidneys. They were increased in size; the pelvis of each had undergone an active inflammation, and several of the tubuli were full of pus.

HISTORY XLIX.

Charles Allen, of the same age, died of ascites about the same time, but the body was not inspected.

HISTORY L.

Mary Beard, aged thirty-eight, was admitted August 15, 1791. She had laboured

laboured under ascites and anasarca during several months, and was now enormously swelled, so that she breathed with extreme difficulty. She took some doses of digitalis, but as they produced no increase of urine, I ordered her to be tapped, a few days after her admission. Accordingly, the operation was performed, and eighteen quarts of water were drawn off. She was relieved in breathing, but a great degree of debility took place, and she died at the end of two days. When the body was opened, the liver appeared of a firmer texture than ordinary, inclining to schirrosity; the kidneys were enlarged, particularly that on the left side; and pus was found in the pelvis of each. In the thorax, the surface of the lungs was much diseased, and purulent; and water was effused in the cavity.

Of forty-seven cases, which I have here presented, under a short view,

twenty-two patients have been cured, three are in a state of convalescence, and will probably soon be discharged; five have been relieved; seven have received no benefit from their first course with me, and have passed into a different class of patients; and ten have died. Several of the last were in a hopeless state, when I first saw them; particularly Taylor, Rules, and Beard.* Most of them were also affected with hydrothorax. The success of the different methods employed has therefore been tolerably good, in a disease so difficult of removal as dropsy. "There "is no disease," says Dr. Home, which "affords hospitals more numerous pa- "tients than the different species of "hydrops, and none, of which fewer "are cured. The incurable nature of "hydropic affections, was of old re- "marked by Aretæus: *Ab ipso pauci*

* Hist. XXIV. XLVIII. and L.

"*liberantur*,

" *liberantur, idque felicitate, ac deorum* " *potius quam artis auxilio.*"*

It remains to compare the merits of the three principal remedies employed, digitalis, cream of tartar, and the tonic pills.

1. Of twenty-four patients, who took digitalis, nine were cured; two were relieved; four died, and nine were not relieved. Of these cases, two were anasarcous; seven were instances of ascites, two of hydrothorax; the rest were complicated, and in almost all the fatal instances, there was water in the chest. I have given this medicine in some other cases, where it did not succeed; but as the patients were in a dying state when I was called to them, it would be unfair to insert them.

* Clinical Exper. and Histories, p. 326.

Yet it must be observed, that in some of the instances I have given, which terminated fatally, notwithstanding the use of digitalis, the patients appeared to be in that state, which Dr. Withering describes as most favourable to the action of that medicine. Hartley, Williams and Newton were examples of this.

Respecting the particular operation of digitalis, in those cases, it may be remarked:

a That where it proved successful, it gave relief early, and in small doses; this appears from the first eight cases, and from that of Lees.

b That when given in such quantities as to excite nausea, or to produce evident narcotic effects, it does not operate as a diuretic. Johnson took it in such doses as to make him very sick, and

and Williams continued it to four grains a-day, till his head and pulse were considerably affected, without passing a drop more of water. These facts correspond with Dr. Withering's experience, so that it is needless to dwell upon them.* I have had such repeated conviction of the first observation, that, if digitalis does not answer within the first week, I exchange it for some other diuretic, or interpose a cathartic, composed of gamboge and cream of tartar. I was led to the latter expedient, by observing, in Williams's case, and another in private practice, that the narcotic effect of the digitalis, in a long use of it, seemed to preclude its action as a diuretic. The same consideration had occurred to Dr.

* Dr. Withering observes (p. 185.) that a diarrhæa, supervening on the use of foxglove, stopped its diuretic effects. It has been asserted, that a purging always impedes the flow of urine, in dropsies, however excited. V. Wilkes on the Dropsy, p. 213.

Stokes.* Gamboge was long celebrated for its hydragogue powers, but appears to have fallen into disgrace by the indiscretion with which it was exhibited. Some of the older writers talk of giving sixteen grains for a dose.† I have found it very safe and manageable in small quantities; sometimes four grains have been necessary to operate four or five times, in a young subject. In conjunction with cream of tartar, it forms a powerful diuretic, and according to circumstances, may be made either to assist, or take the lead of the digitalis. I believe, that by this combination of the remedies, a flow of urine may very generally be commanded.

* Dr. Withering's Account of the Foxglove, p. 150.

† Wilkes on the Dropsy. Art. *Purges.* Sydenham orders fifteen grains of gamboge, in a draught, in the Processus Integri, as a very gentle cathartic.

c When digitalis fails, other diuretics will often succeed. This appears, from the cases of Williams, Jelly, Bowers, Johnson, and several of the rest.

d When digitalis does provoke an increase of urine, the swellings are not always proportionably relieved. While Waters was passing a great quantity of urine, and taking six spoonfuls a-day of the infusum digitalis, the swellings of his legs did not diminish. And while Rowbottom's legs were emptied, a short time before his death, the collection of water in the pericardium appeared to be increased.

2. Of ten cases, in which cream of tartar alone was given, according to Dr. Home's method, six were cured, two died, and two are convalescent. Of these, one was a distinct case of hydrothorax in which all the symp-

toms were removed, and the patient continued well nearly for twelve months. In another, there was strong reason to suspect the presence of water in the chest; there also the symptoms were entirely taken off. In one fatal case, the existence of hydrothorax was ascertained. Two others were cases of anasarca, one of ascites, another of anasarca and ascites combined.

I have to observe, of the peculiar action of cream of tartar:

a That in my successful cases, it operated very early; generally producing an increased flow of urine within twenty-four hours. This was especially remarkable, in Mr. C. and Mather. Dr. Home often found its salutary effects delayed to the end of three or four weeks.* But it is difficult to persuade patients to continue

* Clinical Observations, Exper. &c. Art. Remedies of Hydrops.

the

the use of a medicine so long,* without any sensible benefit.

b I have commonly found it purge the patient four or five times a-day. Instead of increasing the dose, therefore, as Dr. Home directs, I have been obliged to order tonics and cordials, to enable the patient to bear the usual quantity. There is, indeed, great difference between the constitutions of the usual patients at the Edinburgh royal infirmary, and those on which we have to work here. The natives of Manchester generally bear evacuations very ill. But after patients have continued to use this remedy for some weeks, I have found it necessary

* I have often found patients object to the quantity of liquid, in giving the solution of cream of tartar. This has obliged me in several cases, to have recourse to the combination with gamboge, which may be exhibited in a very small portion of fluid.

to

to increase the dose to six drachms, an ounce, or more, every day; and have then found it produce only two stools in twenty-four hours. In such cases, its diuretic power seemed to lessen in equal proportion, After Wyatt had long taken an ounce of cream of tartar a-day, she even became costive with that dose, and required the use of gamboge. Several of my dropsical patients, however, were strangers: Nield, Mather, Duny, Jelly and Johnson were Irish.

c Cream of tartar commonly diminishes the swellings very speedily. It produces very watery stools, and for the greater part, lessens the patient's size more quickly than the increase of urine would lead us to expect.

3. Of eight cases, in which the melampodium was exhibited, three were completely cured, one is convalescent; two

two were emptied, and their swellings quite reduced, but died, from circumstances to be explained hereafter. One was not relieved. Another, Johnson, had watery stools, and was reduced in the size of the abdomen, after digitalis, and many other powerful diuretics had failed. In two of these, there was water in the chest, and probably in Johnson. Two were cases of pure ascites, one cured, and the other convalescent. The rest were complicated.

a The tonic pills, when they have succeeded with me, have operated early, by producing copious watery stools.

b Their action is easy, but in cases of long standing, contrary to Mr. Bacher's assertion, they evidently weaken the patient, however cautiously given.

c Whenever they produce a discharge of water, they reduce the swellings.

ings. These two effects, as I shall soon have occasion to observe, are by no means reciprocal in the use of every diuretic.

The Pulvis Doveri was given only in one case. The occasional cause of the disorder led directly to the employment of sudorifics, in that instance.

Gamboge with cream of tartar gave relief in a case (Bowers's) which had baffled every other prescription. The patient was cachectic, and there was reason to believe that the viscera were obstructed. The same remedy, in conjunction with calomel, was given, in a case of anasarca, and effected a cure very speedily.

The combination of calomel with squills was pushed to a considerable extent, with Jelly, because I suspected the condition of the liver. It did not, however,

however, diminish the swellings in proportion to its diuretic effect.

The tobacco tincture proved a ready diuretic with Coxe. In the two other cases, and in some which I do not recollect with sufficient accuracy to insert, it did no service. But in Coxe's case, which was evidently a dropsy of the ovarium, no benefit could be expected from simple diuretics. The mercurial friction, and spiritus ætheris vitriolici, produced a considerable effect on the disease. The latter, as well as the spiritus ætheris nitrosi, probably increases the urine by the action of its alcohol.

In Betty Clay's case, we have a striking example of the little anti-hydropic power of an active diuretic, the spiritus ætheris nitrosi. She attended me only once in two or three months, and at the end of eight, was as much swelled as

as ever; though she had been constantly using this medicine, and though her urine was passing in very unusual quantity. The tonic pills have nearly effected a cure in this case.

On reviewing these observations, which were made without choice, and with no predilection for any remedy, the result appears not highly in favour of the digitalis. Yet I esteem it a valuable medicine, and I have always found it safe, by attending to Dr. Withering's cautions. The melampodium, as given in the form of tonic pills, appears, likewise, to possess virtues that ought not to be neglected. I have employed the cream of tartar in comparatively few cases, but when their nature is considered, and the surprizing proportion of success allowed for, I think we may fairly rank this medicine in the first

first class of hydragogues. From what I have seen of its effects, I shall hereafter give it a preference in most cases of dropsy, to bring forward a larger testimonial of its real merits. Stronger conclusions may be drawn in its favour, from these cases, because they coincide with the experience of Dr. Home.* Indeed, if cream of tartar be found to possess only an equal share of merit with digitalis, the former will deserve the preference, as possessing no deleterious qualities and being easily managed by practitioners of the smallest judgment. In treating of this remedy, Dr. Home has formed a just and valuable distinction, between remedies which act chiefly as diuretics, and those, which at the same time, diminish the fluid effused in dropsies. I have been led to refer to this distinction more than once, in the preceding cases. The doctor's words are these;

* Clinical Observ, Exper. &c, p. 349,

"We

"We have found, that oxymel col-
"chici, baccæ juniperi, &c. are much
"stronger diuretics, but much weaker
"antihydropics, than cremor tartari.
"We have seen, that it often neither
"increases urine nor stool, and yet
"that it cures."* If this difference were more observed, some mortifying disappointments in practice might be avoided.

Twenty-one of my patients were males, and twenty-six were females. This proportion supports the common opinion, that women are more subject to hydropic affections. Their ages have varied from a year and a half to seventy.

In those cases which terminated fatally, where an inspection of the body

* Clinical Exper. Obs. &c. p. 353. The whole passage, which is long, deserves particular attention.

was

was obtained, besides the appearances of disease in the viscera, usual in dropsical complaints, we have frequently seen the kidneys affected with enlargement, inflammation, and a degree of suppuration. In Rowbottom, besides the disease in the liver, there was an affection of the heart, sufficient alone to produce death. In such instances, dissections prove the impossibility of saving the patient. Yet in several of these cases, much relief was obtained by the use of medicines, and life was not only prolonged, but soothed. The power of an hydragogue never appears greater, to a judicious observer, than when it reduces swellings occasioned by permanent disease in the viscera, although the event of the case should be ultimately fatal.

Five of my patients died, in consequence of a diarrhæa, which began

when their swellings were greatly reduced. It is an observation of Hippocrates, repeated by all writers* on this disease, that a diarrhæa, appearing in a dropsy of long continuance, is generally fatal. Johnson, however, had a looseness, almost at the distance of three months from the time of his admission, and yet escaped. In three of the dissections, an evident cause of this symptom appeared: the intestines were in a state of great inflammation.

Such a state of the bowels is frequently mentioned by practical writers,† but not as connected with a diarrhæa, nor as following the abatement of the swellings. I am inclined to believe, that this is a peculiar termination of inveterate ascites. We see

* Hoffman, tom. III. p. 329. Sydenham sub titulo, Lieutaud Precis de la Med. Prat. &c.

† Monro on Dropsy, p. 8. and the authors quoted above.

in

in some other cases, in the puerperal fever particularly, that inflammation may arise in the contained parts of the abdomen, in consequence of the sudden removal of pressure; and in whatever way that fact may be explained, I apprehend that a similar process takes place, after the reduction of hydropic swellings.* Hoffman and some others, explain such affections of the intestines from the long-continued action of the effused water on them, which, though a theory of no value, shows their conviction of the reality of the fact. It is evidently of great importance to ascertain in what cases such a termination may be expected, because the practice, in a disease of long continuance, ought to be considerably

* We must take care to distinguish, however, that in puerperal fevers the peritoneum appears to be first affected. In hydropic inflammation, the villous coat of the intestines is chiefly attacked.

influenced by it. This view will induce the physician to avoid all stimulating purgatives, and rather to solicit a very gradual discharge of the effused fluid, than to urge the constitution to a degree of action, that may increase to a morbid state. There was no particular appearance indicative of this termination, in the cases I have observed, excepting a general irritability of the habit, which always secured the effect of the diuretics administered.

In three other fatal instances, death was brought on by gangrene. This is commonly to be expected, in men, when the skin of the penis has become distended and tortuous. Johnson is the only patient whom I have seen survive this symptom. In respect of this state, also, as a probable termination of dropsy, it is evident, that brisk purgatives, in the confirmed stage of the disease, must be very injurious. I should even dread,

dread, in such circumstances, the effects of digitalis on the moving powers of the circulation.

I have never had recourse to tapping, but when the state of the swellings threatened suffocation. Whenever I have been compelled to employ it, I have found the effusion renewed in great quantity, in the course of forty-eight hours, or within three or four days at the utmost.

HYDROCEPHALUS.

Great doubts must attend every apparent instance of success, in the treatment of hydrocephalus internus. Other diseases produce nearly similar symptoms, and mercury, the prevailing remedy in hydrocephalus, is used with

success in those disorders; particularly in removing worms from the intestinal canal. The two following cases will prove that hydrocephalus may be survived, but I am inclined to regard them as spontaneous cures, little, if at all assisted by medicine. As new facts, however, they are worth recording, and as they afford clear instances of recovery, from a complaint generally deemed incurable, they may teach us not to despair, in similar situations.

In February, 1783, I was consulted for a boy, two years of age, who, about ten days before, had been suddenly deprived of his speech, of the motion of his right arm, and of that of both legs and feet. When I saw him, he had recovered the use of his arm, in some degree, but the lower extremities remained entirely useless. After the first appearance of these symptoms, the bones of the cranium had separated,

separated, and the right parietal bone was considerably elevated. The eyes were protruded, but, in a moderate light, the pupils had a natural appearance and contracted well. He underwent a feverish paroxysm every day. His pulse was commonly quick; his sleep much disturbed; and though naturally lively and active, he now appeared uncommonly dull. He had been blistered between the shoulders, without relief. I directed a blister to be applied over the fontanella, and ordered three grains of calomel to be given every second or third day. The paralytic symptoms went off rapidly, under this course, and at the end of a week, the bones of the cranium began to approximate. The sutures soon closed again, and the child recovered his usual spirits and activity with the use of his limbs.

In spring, 1789, the family of a labourer in Wood-Street, of the name

of Belcher, was attacked by the fever then prevalent. One of the children, a boy about a year and half old, was insensible during a great part of the course of the fever, and lingered much in his recovery. When the strength returned, an aversion to light was observed, and the head began to increase in size. At length, the sutures opened, and the child became blind. The motion of the lower limbs was lost about the same time. I gave calomel in small doses, every other day, so as to keep the body moderately open, but without exciting any signs of mercurial action. By degrees, the child became more lively, regained the use of its limbs, and the enjoyment of all its senses, but that of sight. The head then decreased in size, aud at the end of six weeks, the sutures closed again. The patient grew strong, active and lusty. But a cataract of considerable size now appeared in each eye,

eye, and as an operation was not to be thought of in so young a subject, he was discharged, cured of hydrocephalus.

Perhaps the fortunate event of these cases was owing to the suddenness with which the effusion was made. In the first, no exciting cause could be discovered, and probably whatever cause had acted, had not been permanent. In the second, the febrile attack seemed to excite the effusion; and with the fever, the dangerous state of the disease had ended. Symptoms of recovery appeared, in the first patient, before I saw him; I have therefore little hesitation in considering his cure as spontaneous. The event of the second case is more doubtful in this respect. Little mercury was given, and no affection of the mouth was excited; neither was there any increase of urine. Perhaps the medicine assisted nature in some

some degree, but I am disposed to rank this also as an instance of spontaneous recovery, by recollecting the sudden amendment of the constitution in every respect. The relief of the complaint in the head appeared to follow this amendment, not to introduce it.

Exhibiting the EFFECTS of some DIURETICS, in FORTY-SEVEN CASES of DROPSY.

Name.	*Age.*	*Species of Dropsy.*	*Remedy.*	*Event.*
1. Sarah Irlam	60	Anasarca	Digitalis	Cured
2. John Wilson	28	Ascites and Anasarca	Digitalis, 1st Course	Cured
The same	/	Relapsed	Digitalis, 2d Course	Not relieved
3. Elizabeth Hall	31	Leucophlegm. & incip. asci.	Digitalis	Cured
4. John Dawson	55	Ascites & Leucophlegmatia	Digitalis	Cured
5. James Heys	27	Ascites and Anasarca	Digitalis	Cured
6. Elizabeth Atherton	19	Ascites & Leucophlegmatia	Digitalis	Cured
7. Ellen Farrar	19	Hydrothorax	Digitalis	Cured
8. Margaret Dewrden	9	Ascites	Digitalis	Cured
9. Elizabeth Bayley	25	Hydrothorax	Digitalis	Relieved
10. John Rowbottom	16	Hydroth. Ascites & Anasar	1. Digitalis, & Cream of Tartar with gamboge. 2. Calomel with Squills	Relieved
11. Ellen Wyatt	58	Ascites	1st. Course. Tonic Pills. Digitalis	Not relieved
The same			2d Course. Cream of Tartar in Solution, with Gamboge	Convalescent
	52	Ascites	Digitalis	Cured

Cases of Ascites alone, *thirteen*; of which, were

Cured,	5.
Died,	3.
Convalescent,	2.
Not relieved,	3.

Cases of Hydrothorax alone, *four*; of which,

Cured,	2.
Relieved,	1.
Convalescent,	1.

Cases of Anasarca alone, *five*; of which

Cured,	4.
Not relieved,	1.

Cases of Hydrocephalus, *two*; both recovered.

Case of Hydrops Ovarii, *one*; relieved.

Cases of Anasarca and Ascites complicated; *thirteen*; of which,

Cured,	8.
Died,	1.
Relieved,	1.
Not relieved,	3.

Cases of Ascites and Anasarca, or of either, complicated with Hydrothorax; *nine*; of which,

Cured,	1.
Died,	6.
Relieved,	2.

Total

Total cured,	22.
—— relieved,	5.
Convalescent,	3.
Not relieved,	7.
Dead,	10.
	47.

It appears from this table, that cases of anasarca alone, or of anasarca and ascites complicated, are the most curable species of dropsy; next to these ascites; and that the most intractable kind is the complication of ascites and anasarca, or of either, with hydrothorax. This confirms the common opinion. My cases of hydrothorax alone have been very favourable; but they are not in sufficient number to justify a conclusion. The same observation applies to the instances of hydrocephalus, and to that of hydrops ovarii.

UVA URSI.

I have given this medicine in a considerable number of nephritic cases, in very moderate doses, and always with manifest advantage. When the pain is very acute, and the pulse quick, I begin the cure with bleeding, and a gentle purgative, composed of manna and a neutral salt. This purgative I repeat twice a-week, and on the intermediate days, direct the patient to take five* grains of uva ursi, and half a

* The smallness of this dose, in exhibiting a medicine generally given in the quantity of a scruple, may excite surprise. A medical friend, of high reputation, who inspected these papers before they went to the press, appeared very dubious respecting this particular. The facts, however, are exactly as I have represented, and I may add, that in doses of a scruple, or half a drachm, I have found this remedy produce nausea, even when joined with opium.

grain

grain of opium, three or four times a-day, according to the urgency of the symptoms. I have never found larger doses necessary. This method always relieves, and generally effects a cure. Of sixteen patients, treated in this manner, I have discharged twelve cured.* In reckoning the cures, I do not rest on the cessation of a single fit, but require a permanent relief from pain. Many of my patients have used the remedy for several months together, before this end was attained. The fits became slighter, and at length ceased.

The mode in which this remedy acts, is still unknown. It produces no sensible effect beside the abatement of pain, which cannot be attributed to the small quantity of opium joined

* Of the remaining four, two were much relieved, and two discontinued their attendance.

with

with it. Dr. Cullen's conjecture on this subject, though it seems to approach near the truth, still gives us an effect for a cause. Perhaps the secret is to be sought in the undiscovered process of the generation of calculus. If, as the new chimistry teaches us, the human calculus consist in a great measure of a peculiar acid, it is possible, that a bitter and astringent of a certain nature, may exert specific powers, by direct action on the solids, in preventing the separation of that acid from the fluids, in uncommon quantity.

I have had occasion to try the effect of uva ursi, in some cases of hæmaturia, in delicate female subjects, where there was every reason to conclude, that the hæmorrhage proceeded from the kidnies. It has always succeeded in removing the complaint.

From

From these, and some other facts, I have been led to believe, that this remedy acts specifically, as a tonic and astringent, on the kidnies.

HYSTERIA.

Men are frequently attacked by complaints which approach to the hysterical type. In the following instance, a young man was affected with regular hysteric fits, in consequence of continued vexation and anxiety.

In spring, 1789, I was desired to visit J. C. about seventeen years of age, on account of fits, with which he had been seized a few days before. I was told, that they began with great dejection of spirits, sighing, and uneasiness about the præcordi. He then became

became apparently insensible, but groaned much, and did not recover for a considerable time. He relapsed frequently, from slight causes, and often had three or four fits in a day. He said, that he felt the globus hystericus, at the approach of each paroxysm, and that he retained his senses, in some degree, to the termination of each. His pulse was weak, and hurried; his tongue somewhat foul; and his countenance timid. His evacuations were natural. I do not recollect the particular nature of his employment, but it was of a sedentary kind.

After clearing his stomach by an emetic, I directed some pills to be made up, composed of opium and asa-fœtida, and to be given in such a manner, that he took half a grain of the former, and four grains of the latter, every hour, previous to the approach of the morning paroxysm. On the

first day of taking the pills, the fit came on, but in a slighter degree. The next day, he was ordered to begin at a greater distance from the usual time of the fit. He took, by this means, three grains of opium, and more than a scruple of asafœtida. The paroxysm was effectually prevented by this dose without producing the smallest uneasiness to the patient. Two of the pills were given at bed-time, for a few nights afterwards, and the cure was finished by administering tonics. I have not heard that he has suffered any relapse.

DIABETES.

I have seen very few instances of this disorder, and can add nothing to its history, but one case in which the patient was cured. Any example of success,

success, in a complaint generally so intractable, is interesting and encouraging.

Robert Backhouse, aged forty-five, was admitted in June, 1791. He had passed a very great quantity of urine, for several weeks. At the time of his admission, the flow of urine was greatest in the night, and prevented him from sleeping. He then passed from three to four quarts in the course of each night, exclusive of at least one quart in the day. His urine was whey-coloured, and of a sweetish taste. He was much emaciated, and troubled with a constant thirst; his tongue appeared parched, and was divided by small fissures.

I directed for him a course of bark, with elixir of vitriol. In a fortnight, his urine came off in smaller quantity, and soon after was reduced entirely to

a natural state. He then complained of considerable heat and pain in the region of the bladder, which were removed by demulcents. He went out, with a cough, and some other pectoral complaints (for which he was desired to attend as an out-patient) but perfectly cured of his diabetes.

Dr. Sydenham seems to have considered this as a disease arising from debility,* but he has not taken notice of it as an idiopathic disorder. Our patient's symptoms indicated tonic remedies, and these had all the success I could desire. If they had failed, I should have joined the use of lime-water with them. This remedy has been considered, by some practitioners, as a kind of specific in diabetes.

The only remarkable circumstance which I could trace in the previous

* Of the epidemic diseases, from 1675 to 1680.

history

history of this patient, was that he had indulged himself in drinking spirituous liquors.

Several cases of diabetes mellitus have come under my care, since the first publication of this volume.

A complete cure is seldom obtained, in the advanced stage of this disease; yet by treating it as a disease of debility, in conformity to Dr. Sydenham's opinion, I have been enabled generally to relieve the patients, and sometimes to effect a cure.

The theory of diabetes, advanced by Dr. Cullen and Dr. Dobson, and adopted with additional error by Dr. Darwin, has been so solidly refuted by Dr. Baillie, that I think it unnecessary to enter into the discussion. I refer the reader, for these arguments, to the

Transactions of a Society for the improvement of Medical and Chirurgical knowledge, vol. II. art. 5.

In one case of diabetes, which terminated fatally, I obtained an inspection of the body, and found the kidnies greatly diseased. There were ulcerations in the pelvis of each kidney, and even the external surface of each was covered with deep ulcers, in a circular form. With such appearances before us, it would be idle to seek for the seat of this complaint in a distant organ, and it would be vain to expect a permanent cure, in such a state of the kidnies, from any remedy.

The suggestions of this defective theory, however, have proved useful, by introducing the practice of confining the patient to animal food, for which we are indebted to Dr. Rollo, and the efficacy of which will be strongly exemplified

exemplified in two of the succeeding cases.

From the view which I had taken of diabetes, I was induced to try a combination of Peruvian bark, uva ursi, and opium, in the proportions of a scruple of each of the former, to half a grain of the latter, four times a-day. The doses were taken with lime-water, which was also directed for the patients' common drink. Three cases of confirmed diabetes mellitus were cured by this plan. I shall now give a detailed view of some recent cases of the disease, exhibiting the progress of recovery.

Samuel Brookes, a middle aged man, was admitted, Oct. 10th, 1808, into the infirmary. He had been affected with diabetes, in a greater or less degree, for a year and half. The following table will shew the increase, and subsequent diminution of his urine.

TABLE.

Oct.	10, 1808,	in 12 hours,	6 pints.
	12,	in 24 ditto,	10 ditto.
	13,	ditto,	12 ditto.
	14,	ditto,	13½ ditto.
	15,	ditto,	14 ditto.
	16,	ditto,	16 ditto.
	17,	ditto,	17½ ditto.
	18,	ditto,	15 ditto.
	19,	ditto,	14 ditto.
	20,	ditto,	15 ditto.
	21,	ditto,	15 ditto.
	22,	ditto,	17 ditto.
	23,	ditto,	16½ ditto.
	24,	ditto,	14½ ditto.
	25,	ditto,	18 ditto.
	26,	ditto,	15 ditto.
	27,	ditto,	15 ditto.
	28,	ditto,	16½ ditto.
	29,	ditto,	18 ditto.
	30,	ditto,	16 ditto.
	31,	ditto,	17 ditto.
Nov.	1,	ditto,	15 ditto.
	2,	ditto,	20 ditto.

Nov.	3, 1808,	in 24 hours,	17 pints.
	4,	ditto,	14 ditto.
	5,	ditto,	14½ ditto.
	6,	ditto,	14 ditto.
	7,	ditto,	15 ditto.
	8,	ditto,	14 ditto.
	9,	ditto,	13 ditto.
	10,	ditto,	9 ditto.
	11,	ditto,	12 ditto.
	12,	ditto,	12 ditto.
	13,	ditto,	14 ditto.
	14,	ditto,	12 ditto.
	15,	ditto,	15 ditto.
	16,	ditto,	14 ditto.
	17,	ditto,	19 ditto.
	18,	ditto,	14 ditto.
	19,	ditto,	20 ditto.
	20,	ditto,	19 ditto.
	21,	ditto,	16 ditto.
	22,	ditto,	20 ditto.
	23,	ditto,	20 ditto.
	24,	ditto,	19 ditto.
	25,	ditto,	21 ditto.
	28,	ditto,	18 ditto.
	29,	ditto,	19 ditto.
	30,	ditto,	16 ditto.
Dec.	1,	ditto,	17 ditto.
	2,	ditto,	16½ ditto.
	3,	ditto,	21 ditto.
	4,	ditto,	18 ditto.

Dec.	5,	1808,	in 24 hours,	17 pints.
	6,		ditto,	16 ditto.
	7,		ditto,	16 ditto.
	8,		ditto,	18 ditto.
	9,		ditto,	18 ditto.
	10,		ditto,	18 ditto.
	11,		ditto,	19 ditto.
	12,		ditto,	19 ditto.
	13,		ditto,	19 ditto.
	20,		ditto,	16 ditto.
	21,		ditto,	14 ditto.
	26,		ditto,	23 ditto.
	27,		ditto,	22 ditto.
	29,		ditto,	19 ditto.
	30,		ditto,	18 ditto.
	31,		ditto,	17 ditto.
Jan.	1,	1809,	ditto,	22 ditto.
	2,		ditto,	20 ditto.
	3,		ditto,	21 ditto.
	4,		ditto,	22 ditto.
	5,		ditto,	$20\frac{1}{4}$ ditto.
	6,		ditto,	20 ditto.
	7,		ditto,	19 ditto.
	8,		ditto,	21 ditto.
	9,		ditto,	18 ditto.
	10,		ditto,	$16\frac{1}{2}$ ditto.
	11,		ditto,	15 ditto.
	12,		ditto,	14 ditto.
	13,		ditto,	14 ditto.
	14,		ditto,	13 ditto.

Jan.	15, 1809,	in 24 hours,	14 pints.
	16,	ditto,	14 ditto.
	17,	ditto,	12 ditto.
	18,	ditto,	15 ditto.
	19,	ditto,	15 ditto.
	20,	ditto,	12 ditto.
	21,	ditto,	12½ ditto.
	22,	ditto,	14 ditto.
	23,	ditto,	13 ditto.
	24,	ditto,	10½ ditto.
	25,	ditto,	10½ ditto.
	26,	ditto,	12 ditto.
	27,	ditto,	12 ditto.
	28,	ditto,	11 ditto.
	29,	ditto,	10½ ditto.
	30,	ditto,	10½ ditto.
	31,	ditto,	12 ditto.
Feb.	1,	ditto,	11 ditto.
	2,	ditto,	10½ ditto.
	3,	ditto,	10½ ditto.
	4,	ditto,	10½ ditto.
	5,	ditto,	10½ ditto.
	6,	ditto,	10 ditto.
	7,	ditto,	9½ ditto.
	8.	ditto,	10 ditto.
	9,	ditto,	8½ ditto.
	10,	ditto,	6½ ditto.
	11,	ditto,	5½ ditto.
	12,	ditto,	6 ditto.
	13,	ditto,	6 ditto.

Feb.	14, 1809	in 24 hours,	6½ pints.
	15,	ditto,	8 ditto.
	16,	ditto,	7½ ditto.
	17,	ditto,	7½ ditto.
	18,	ditto,	6½ ditto.
	19,	ditto,	8 ditto.
	20,	ditto,	7½ ditto.
	21,	ditto,	7 ditto.
	22,	ditto,	8 ditto.
	23,	ditto,	8 ditto.
	24,	ditto,	8 ditto.
	25,	ditto,	7 ditto.
	26,	ditto,	8 ditto.
	27,	ditto,	7½ ditto.
	28,	ditto,	7½ ditto.
March	1,	ditto,	6½ ditto.
	2,	ditto,	7 ditto.
	3,	ditto,	8 ditto.
	4,	ditto,	8½ ditto.
	5,	ditto,	8 ditto.
	6,	ditto,	8 ditto.
	7,	ditto,	8 ditto.
	8,	ditto,	8 ditto.
	9,	ditto,	7 ditto.
	10,	ditto,	9 ditto.
	11,	ditto,	8 ditto.
	12,	ditto,	7 ditto.
	13,	ditto,	7½ ditto.
	14,	ditto,	7½ ditto.
	15,	ditto,	8 ditto.

March 16, 1809,	in 24 hours,	7	pints.
17,	ditto,	8	ditto.
18,	ditto,	8	ditto.
19,	ditto,	6½	ditto.
20,	ditto,	8	ditto.
21,	ditto,	7	ditto.
22,	ditto,	7½	ditto.
23,	ditto,	6½	ditto.
24,	ditto,	6	ditto.
25,	ditto,	7	ditto.
26,	ditto,	6	ditto.
27,	ditto,	6	ditto.
28,	ditto,	4½	ditto.
29,	ditto,	5½	ditto.
30,	ditto,	5½	ditto.
31,	ditto,	5	ditto.
April 1,	ditto,	5	ditto.
2,	ditto,	5½	ditto.
3,	ditto,	6	ditto.
4,	ditto,	6	ditto.
5,	ditto,	5	ditto.
6,	ditto,	5	ditto.

This

This patient was much emaciated, when admitted, and had a thick yellow crust on his tongue. The prescriptions were;

Capiat. Pulv. Uvæ Urs.
—— Cort. Peruv. āā ℈j.
—— Opii grss quater in die.

Bibat Aq. Calc. ℥ij. post sing. dos. Pulver.

On Dec. 19th, when he was evidently regaining his health, he was put on a strict diet of animal food: his looks were at that time improving. A diarrhæa was occasioned by the animal diet, in consequence of which his medicines were omitted, and he was put on common diet.

On the 26th, he was ordered to take his powders again, but ten grains of the extract of Ratania were substituted for the Peruvian bark. His urine was still decreasing in quantity.

On

On Jan. 11th, being much better in health, he was again restricted to animal food, and the plan of medicine and regimen was continued without variation, till the 10th of April, when he was discharged; the quantity of urine being then natural, though it still contained saccharine matter.

Dr. Henry has favoured me with the following remarks on the chemical properties of the urine.

"The first examination, which I made "of Brookes's urine, was in November "last. It had then, distinctly, all the "chemical properties, that characterize "this fluid in diabetes mellitus. Its "specific gravity varied from 1029 to "1033, the first urine voided in a "morning by a healthy person having "usually the specific gravity of 1020. "When evaporated by the heat of "steam, it gave about 1-15th its weight

"of

" of a tenacious extract, which became " hard and brittle on cooling, and con- " sisted almost entirely of saccharine " matter, without any of that peculiar " substance (urea) which distinguishes " healthy urine. No urea, at least, " could be discovered by the application " of nitric acid; but by other methods " of analysis, which I shall soon have " occasion to publish, a small proportion " was detected, and may, I believe, be " discovered in all diabetic urine. This " fact is of some importance; inasmuch " as it proves that the secretory office of " the kidnies, however it may be im- " paired, is not altogether deranged even " in the worst form of the disease.

" On the 22d of February, the urine " of the same person yielded 1-16th its " weight of extract, a variation from the " former proportion not greater than " often occurs in the same day. The " extract was equally saccharine as be-

the

"fore, and still afforded no scales on "the addition of nitric acid. On the "4th of April, it gave 1-12th; and, on "the 8th, between 1-10th and 1-11th "its weight of saccharine matter, with- "out any sensible portion of urea. "Hence it appears, that notwithstanding "the patient's amendment, and the great "reduction of saccharine matter daily "evacuated, its proportion, in a given "quantity of urine, had rather increased "than diminished. This is contrary "to the experience of Dr. Rollo and "many of his correspondents, who "found the effect of animal diet to be "a diminution of the proportion of "extractive matter, and the re-appear- "ance of urea.

"I had no opportunity of examining "Winterbottom's urine, till he had been "some time exclusively using animal "food; but his description leaves no "doubt that it had been before largely

" impregnated with sugar. It has now, " in every respect, the properties of " healthy urine, containing no saccha- " rine matter, and affording the natural " proportion of extract, in which urea " is made remarkably apparent by the " test of nitric acid.

" A singular appearance in Brooks's " urine, at one period of the disease, " was the deposition of a large quantity " of coagulated albumen, in round " grains resembling pearl barley. Du- " ring three days, this deposit amounted " to two ounces and a half.

" I examined, with the greatest atten- " tion, a small quantity of blood, which " had been taken from Brooks's arm. " The serum had precisely the same " specific gravity as that of healthy " blood, and coagulated at the same " temperature. It had not the whey " colour, which I remember once to

" have

"have remarked in an instance of "this disease, nor did it afford the "smallest trace of sugar on the most "careful analysis."

Marcellus Winterbottom, a young man, had been ill of diabetes for two months. He was admitted Dec. 26th, 1808. He was ordered the same medicines with Brookes, and on Jan. 21st, was confined to a strict diet of animal food. No variation took place, till the time of his being discharged, when his urine was natural, both in quantity and quality.

TABLE.

Dec.	29, 1808,	in 24 hours,	17 pints.
	30,	ditto,	17 ditto.
	31,	ditto,	14 ditto.
Jan.	1, 1809,	ditto,	14½ ditto.
	2,	ditto,	15 ditto.
	3,	ditto,	16 ditto.
	4,	ditto,	16½ ditto.
	5,	ditto,	15½ ditto.
	6,	ditto,	16½ ditto.
	7,	ditto,	15 ditto.
	8,	ditto,	15½ ditto.
	9,	ditto,	16 ditto.
	10,	ditto,	15½ ditto.
	11,	ditto,	14 ditto.
	12,	ditto,	15½ ditto.
	13,	ditto,	16 ditto.
	14,	ditto,	15 ditto.
	15,	ditto,	16 ditto.
	16,	ditto,	15 ditto.
	17,	ditto,	16 ditto.
	18,	ditto,	17½ ditto.
	19,	ditto,	14 ditto.
	20,	ditto,	15 ditto.

Jan.	21, 1809,	in 24 hours,	14 pints.
	22,	ditto,	13½ ditto.
	23,	ditto,	13½ pints.
	24,	ditto,	12½ ditto.
	25,	ditto,	12 ditto.
	26,	ditto,	11½ ditto.
	27,	ditto,	11 ditto.
	28,	ditto,	10 ditto.
	29,	ditto,	10 ditto.
	30,	ditto,	11 ditto.
	31,	ditto,	10 ditto.
Feb.	1,	ditto,	11 ditto.
	2,	ditto,	12 ditto.
	3,	ditto,	10 ditto.
	4,	ditto,	9½ ditto.
	5,	ditto,	9 ditto.
	6,	ditto,	10 ditto.
	7,	ditto,	10 ditto.
	8,	ditto,	12 ditto.
	9,	ditto,	9½ ditto.
	10,	ditto,	11 ditto.
	11,	ditto,	9½ ditto.
	12,	ditto,	9 ditto.
	13,	ditto,	8 ditto.
	14,	ditto,	10 ditto.
	15,	ditto,	8½ ditto.
	16,	ditto,	8½ ditto.
	17,	ditto,	8 ditto.
	18,	ditto,	8½ ditto.
	19,	ditto,	8 ditto.

Feb. 20,	1809,	in 24 hours,	7½ pints.
21,		ditto,	7 ditto.
22,		ditto,	8 ditto.
23,		ditto,	7 ditto.
24,		ditto,	10 ditto.
25,		ditto,	8 ditto.
26,		ditto,	8½ ditto.
27,		ditto,	7½ ditto.
28,		ditto,	7½ ditto.
March 1,		ditto,	8 ditto.
2,		ditto,	7 ditto.
3,		ditto,	6 ditto.
4,		ditto,	7 ditto.
5,		ditto,	8 ditto.
6,		ditto,	7 ditto.
7,		ditto,	7 ditto.
8,		ditto,	9 ditto.
9,		ditto,	7 ditto.
10,		ditto,	7 ditto.
11,		ditto,	6 ditto.
12,		ditto,	7 ditto.
13,		ditto,	5½ ditto.
14,		ditto,	6 ditto.
15,		ditto,	7 ditto.
16,		ditto,	8 ditto.
17,		ditto,	5 ditto.
18,		ditto,	7 ditto.
19,		ditto,	5 ditto.
20,		ditto,	7 ditto.
21,		ditto,	5½ ditto.

March 22,	1809,	in 24 hours,	6 pints.
23,		ditto,	6 ditto.
24,		ditto,	5½ ditto.
25,		ditto,	6 ditto.
26,		ditto,	6 ditto.
27,		ditto,	6 ditto.
28,		ditto,	5½ ditto.
29,		ditto,	5½ ditto.
30,		ditto,	5½ ditto.
31,		ditto,	3½ ditto.
April 1,		ditto,	4½ ditto.
2,		ditto,	5 ditto.
3,		ditto,	4 ditto.
4,		ditto,	4 ditto.
5,		ditto,	5½ ditto.
6,		ditto,	5 ditto.

In another case, which was treated with the same medicines, but without restriction of diet, I did not succeed. The patient at first made fifteen pints of water in twenty-four hours, and when he was discharged, the quantity was only reduced to five quarts. It contained saccharine matter.

While these cases prove the efficacy of this mode of treatment, they shew the importance of animal diet in this disease.

EPIDEMIC FEVER

OF 1789, AND 1790.

In the winter of 1789, and in spring 1790, an epidemic fever prevailed much in Manchester and Salford. The preceding summer and autumn had been uncommonly moist, and the month of November set in with much cold and heavy rain. The symptoms were, pain in the head, back, and limbs; sickness; cough; and in several cases towards the end of the winter, great pain and difficulty in voiding urine. The pulse was quick, but soft; and sometimes intermitted in the first days. The tongue was generally white; sometimes with a longitudinal brown stripe in the middle. The patients were commonly

commonly costive at first. In the course of the first week, the head-ach and pain of the back became excruciating, and were often accompanied with low delirium. The skin was, at this period, in most cases dry and harsh, without any remarkable heat; but in some cases, profuse watery sweats took place. In the second week, the dryness and harshness of the tongue increased; the eyes became inflamed; the patient was inattentive to what passed around him, but restless. The cough increased to a distressing degree; and costiveness became habitual. At the end of this period, the lips and teeth had generally contracted a black fur; the patient often groaned, and sometimes shrieked aloud: the skin was parched and burning; and the disease became a formed typhus.

The epidemic was most prevalent from November to January, in the winter,

winter, and appeared again in the succeeding April. When the first frosts set in, most of my patients who then had the fever became delirious. Those women who recovered, were commonly affected with hysterical symptoms, after the fever disappeared. The first instance of this kind was somewhat intricate. After the abatement of all the feverish symptoms, the patient was seized with violent sickness and vomiting in the evening, which continued to a very late hour. An anodyne was prescribed, and she was better next day. But the sickness and vomiting returned, on the succeeding evening, and I was then told, that she had thrown up some green matter. On particular inquiry, I found that some degree of the globus hystericus attended the paroxysm. The goodness of her pulse every morning, after a vomiting-fit of three or four hours, confirmed me in my opinion of the

nature

nature of the complaint. Accordingly, I ordered draughts with asafœtida and opium, and found that the paroxysms yielded readily, and soon entirely left her.

The mortality in this epidemic was not great, though we had dreadful accounts of its ravages in some of the neighbouring towns. Out of the first ninety patients whom I attended in it, two only died. One of these had been confined to bed during a fortnight before I saw her. In general, those who were visited during the first three or four days of the disease, recovered very early. But when patients were suffered to linger for a fortnight or three weeks, before assistance was desired, of which I had too many instances, the disease proved tedious and difficult.

In the early stage, antimonial emetics, and gentle laxatives did eminent service.

service. The fever often disappeared, as soon as the bowels were cleared. In general, the patients bore purging well, and even required it repeatedly; the pulse commonly became firmer and more regular, after evacuations of this kind.

J. M. had been attacked with the usual symptoms of the epidemic, three days before I saw him. He was costive, and his pulse intermitted every fifth or sixth stroke. I ordered him five ounces of infusion of sena, which produced several loose stools. Next day, the pulse was regular, and the intermission was entirely gone. This is the only clear instance of the Solanian pulse that I have met with. After unloading the bowels, if the skin continued dry, and the pulse quick, a diaphoretic mixture was ordered, containing antimonial wine and laudanum, in the quantity of fifteen drops

drops of the former, and ten of the latter, every three hours. The use of diluents was enjoined; and a particular attention to cleanliness (the most difficult part of the process) carefully enforced. In all offensive houses, I obliged the inhabitants to white-wash the whole; and large jars, containing new-slaked lime, were placed in the chamber of every patient. When the disorder was accompanied with profuse sweats, the spiritus ætheris vitriolici, in doses of half a drachm, repeated every three or four hours, gave great relief. The pains in the head and back, when they resisted these methods, were effectually relieved by blistering between the shoulders. This remedy exerted particular power over the epidemic. A single blister removed every complaint, in many cases.

The dysuria, which prevailed in several instances where no blister had been

been applied, gave way to the large use of diluents combined with mucilage of gum arabic, and to the interposition of opium.

The use of bark was seldom absolutely necessary, excepting when the disease had run into typhus. In the earlier stage, bark did not appear to accelerate the cure, and was only useful by removing debility, after the fever had disappeared,

In some of those unfortunate cases, where the patient had been confined to bed during three or four weeks, before recourse was had to the Infirmary, neither bark nor wine, though assisted by other stimulants, produced any effect on the disease. Even when I could depend on the regular administration of the medicines, I have seen patients waste away, insensibly to themselves, and to those about them; and after lying

lying in a kind of middle state, not dead, but scarcely alive, expire at the end of some weeks. Several patients came under my care, during the intense heat of the last summer, who had been ill from three weeks to a month each, when I first visited them. Two of them* were in this state, and were evidently hastening to their graves, notwithstanding the free use of tonics and antiseptics, when the heat of the weather, and the closeness of their apartment induced me to think of applying the stimulus of cold, in the manner which has been successfully practised in some other hospitals.† I therefore ordered them to be washed with cold water, one very close even-

* Anne and Frances Fowden.

† Dr. Wright of Jamaica recommends cold bathing, even in the beginning of fevers, in warm climates. His confidence in the remedy was proved by his practising it in his own case. London Med. Journal, vol. VII. p. 110.

ing.

ing. The pulse was raised next morning, and they were more sensible. The ablution was repeated next night, and the favourable change continued. I then directed them to be completely immersed, afterwards to be well rubbed, with coarse towels, and laid into bed, with the lower extremities wrapped in flannel. The consequence was, an immediate appearance of recovery, which was followed by a regular progress to convalescence.

A third patient,* sister to the two former, contracted the fever, and in the course of a fortnight sunk into the same languishing condition. She was washed with cold water two or three times a week; was sensibly better after every ablution; and recovered completely.

A fourth patient,† about the same time, was seized with the cholera, then

* Jane Fowden. † Thomas Gibson.

raging in the town. His vomiting and purging were soon stopped (I saw him on the first day) but a great stupor and prostration of strength remained. His pulse was hurried, his countenance yellow, and his tongue covered with a thick crust, brown in the centre. After using tonics and stimulants, and among the latter, blisters to the temples, with little effect, I directed him to be washed all over with cold water. It appeared to refresh him much; he was more sensible and attentive next day, and the ablution was repeated. He even became fond of it. In a few days he was able to come down stairs, but his friends were imprudent enough to let him indulge in animal food, which brought on a diarrhæa, and occasioned an entire change of the course.

Another patient, Jane Jones, caught the fever by lodging in the same house with

with the three sisters already mentioned. She had been ill for five weeks before I was informed of her situation. The mistress of the house had admitted this person fresh from the country, after I had warned her of the danger of receiving new lodgers into a house infected in every room. Alarmed at the effect of her imprudence, when she found the girl sicken, she would not suffer me to be informed of her illness, though I was then visiting herself and three of her children, who successively caught the disease; and the secret was only betrayed by the screams of the poor creature, which were heard in the adjoining house. An inquiry took place, and I was made acquainted with the truth. I found her delirious, with a black fur on the lips and teeth; her cheeks extremely flushed, and her pulse low, creeping, and scarcely to be counted. Finding that the bark with stimulants, wine,

and the application of blisters produced no alteration, but that on the contrary she became more insensible, and passed whole nights in shrieking, I ordered her to be completely washed with cold water. The first and second trials produced no remarkable effect, but finding her no worse, I directed her to be entirely immersed. Next day, she was able to sit up. The remedy was repeated at proper intervals, and she recovered perfectly. All these cases occurred, during the excessive hot weather of July and August, 1791. How far they will apply, in cooler seasons of the year, must be determined by future observations.

The recovery from the state of typhus was, as usual, very gradual. In a few instances abscesses formed, and ended the complaint. Margaret Thompson, aged twenty-six, was admitted November 9, 1789, with the symptoms

toms of the prevailing epidemic, which she attributed to contagion. In the course of a fortnight, she was tolerably free from fever, and seemed to recover very quickly. But on the first day of a smart frost, she was induced to go out, and to walk as long as she could support herself. The fever returned next day, with great violence; a severe diarrhæa came on; and the cough became incessant, and violent. A constant delirium attended these symptoms, so that the case appeared entirely hopeless. Near three weeks were spent in combating these alarming appearances: her diarrhæa was then lessened, and she became rather more sensible. She now complained greatly of a pain in her right side, which kept her in constant agony, and obliged her to lie almost always on her face. Upon examination, I found a round hard tumour under the false ribs on the right side, deep seated, and not affecting the

colour of the integuments. She felt often a violent throbbing in it, and was seized with shiverings several times in the course of the day. She now passed under the care of another practitioner, and I only know, in general, that the tumour burst externally, and that she recovered. If, as there was reason to suspect, this was an abscess of the liver, the case may be added to the number of fortunate escapes.

In some instances, where constant stupor and low delirium prevailed, with redness of the tunica albuginea, and a dark-red fulness overspread the face, I found bleeding with leeches in the temples, succeeded by moderate doses of bark, combined with musk, very useful. Towards autumn, 1790, several cases of petechial fever occurred to me, and, in one quarter of the town, the typhus was complicated with an inflammatory affection of the peritoneum

neum. With the common appearances of typhus, there was pain and distention of the abdomen; the patient was sometimes obstinately costive, and again violently purged. Two cases of this kind proved fatal; one or two others recovered, by the timely application of blisters to the abdomen. Children only were thus affected.

The first instance that occurred to me, was that of John Scholfield, aged seven. He had pains in his head and back, but complained particularly of his belly, which was distended. He was alternately costive and loose; his pulse was weak; his tongue covered with a thick brown crust. His countenance was ghastly, and clay-coloured. He appeared to be sometimes easier; but a stupor came on, and he died on the eighth day of the disease.

On dissection, the whole intestinal canal appeared greatly inflated; in many places it was externally inflamed; but no marks of disease were discoverable within the cavity of the tube. A thick inflammatory exsudation was spread over the whole surface of the peritoneum, which, in several places, gave an appearance of adhesions between the turns of the intestines.

In the other fatal instance of this disease, the patient was covered with petechiæ, from the first attack. Perhaps local inflammation is more commonly joined with typhus than we are aware. Sir John Pringle's dissections prove, that suppuration in the brain is no unusual effect of such fevers; and in different seasons, the determination seems to be made to the bowels or lungs, according to the state of the prevailing epidemic.

In

In the course of the last twelve months, I have met with several instances of putrid fever, in young girls, accompanied with broad maculæ, on the body and limbs, and a gangrenous state of the labia pudendi. The parts were greatly tumefied, and extremely painful. It was a very fatal complaint.

J. C. was brought to me as a paralytic patient. The motion of the right side was nearly destroyed; his speech was greatly impeded, and his eyes were wild and distorted. On inspecting his tongue, I perceived a thick feverish crust, with a brown list along the centre, and his pulse was hurried. He had been ill for some time, and I was told by his attendant, that he was at first attacked with strong feverish symptoms. Even after the paralytic appearances, he continued to complain of rigors, and of pain in the small of his back. All these circumstances gave

gave suspicion that typhus was the original disease, though the paralysis was now the most alarming appearance. He died the next day.

On examining the brain, a livid depression was remarked on the upper part of the lateral lobe of the left hemisphere. Under this, an abscess was found, containing a large quantity of pus, and extending into the left ventricle. The weight of the fluid made that part of the hemisphere protrude so much, that only the right side of the corpus callosum was visible, when the hemispheres were separated in the usual way, to obtain a view of that substance. Another abscess was discovered in the same hemisphere, which did not communicate with the former. Suppuration had taken place in the right hemisphere, and the ventricle of the same side was full of pus. The spinal marrow was flattened, appeared

peared not more than half its natural size, and was surrounded with water.

Fevers of this species always exist among the poor, in certain quarters of this town; and their ravages are only checked by the privilege which patients in indigent circumstances enjoy, of being visited at their own houses by the physicians of the infirmary. As the sick are equally apprehensive of the attack, and instructed in the means of procuring assistance, they commonly apply early to the infirmary, and are often seen in the first days of their illness. An opportunity is thus afforded of cutting the disease short, and of using precautions for securing the rest of the family from the effects of contagion. But the abuses which perpetuate the germ of the disorder cannot be remedied by the activity of any individual, or the succours of any charitable institution now existing. It will

will not be useless, however, to point them out; if they cannot be entirely done away, they may be lessened; and though a spirit of benevolence already prevails among the inhabitants of Manchester, it may add strength to its exertions to shew, that the health of the rich is often nearly connected with the welfare of the needy.

1. The mean lodging-houses, in the out-skirts of the town, are the principal nurseries of febrile contagion. Some of these are old houses, composed of very small rooms, into each of which three, four or more people are crouded to eat and sleep, and frequently to work. They commonly bear marks of a long accumulation of filth, and some of them have been scarcely free from infection for many years past. As soon as one poor creature dies, or is driven out of his cell, he is replaced by another, generally from the country, who

who soon feels in his turn the consequences of breathing infected air. During all this time, the master of the house is totally regardless of the misery before his eyes, while he and his family remain untouched; and it requires some exertion to produce any attention to cleanliness or ventilation. The latter object, indeed, can be very imperfectly obtained in many of these houses, when they are situated in dark narrow courts, or blind alleys. In most of these places lodgers are received. The consequence is, a perpetual succession of fever-patients in them. In other parts of the town, the lodging-houses are new, and not yet thoroughly dirty, but in these the upper story is laid into one room, directly under the tiles, pierced through both by the sun and wind. In this room eight or ten people often lodge, and as the beds almost touch one another, the contagion of fever, once introduced,

troduced, can hardly be prevented from spreading. But it is chiefly in old houses, confined in narrow passages, that contagion is produced. Of the new buildings, I have found those most apt to nurse it, which are added in a slight manner to the back part of a row, and exposed to the effluvia of the privies.

2. The custom of inhabiting cellars, also tends to promote both the origin and preservation of febrile infection. But even in them, the action of filth and confined air is always apparent when fevers arise. I have often observed, that the cellar of a fever-patient was to be known by a shattered pane, patched with paper, or stuffed with rags, and by every external sign of complete dirtiness.

3. After all that has been done for the ventilation of cotton-mills, I fear that

that fevers are still produced in some of them. I attended several patients, last summer, in the worst state of typhus, who had all worked in one cotton-mill, and all of whom became ill about the same time.

4. Other permanent causes of the production of contagion, are, want of proper food and clothing, sleeping on the floor of a damp cellar, with few, or no bed-clothes, and the constant action of depressing passions on the mind. These causes also increase the danger of the disease in a very great degree. I have seen patients in agonies of despair on finding themselves overwhelmed with filth, and abandoned, by every one who could do them any service, and after such emotions I have seldom found them recover.

Illud in his rebus miserandum et magnopere unum
Ærumnabile erat, quod, ubi se quisque videbat
Implicitum morbo, morti damnatus ut esset,
Deficiens animo mœsto cum corde jacebat
Funera respectans, animam & mittebat ibidem.
Lucret. lib. VI.

5. The

5. The same inattention in buying infected clothes prevails among the poor in Manchester, that is noticed by authors, as extending the plague in the Turkish dominions. When a fever seizes one or more of the members of a labouring family, as those who act as nurses are debarred by that duty from working, every part of their furniture that can be disposed of, is gradually sold for subsistence. At length, all but the sick are almost stripped even of their bed-clothes, to support life, and the action of hunger, dampness and despondence prepares fresh victims to the disease among the rest of the family. The clothes thus disposed of, thoroughly penetrated by contagious effluvia, are purchased by healthy persons, without suspicion; and thus fevers may often arise among the servants of the rich, as well as by their incautious visits to the sick. It may be a practice occasionally, with the broker, to heat

heat such articles in an oven, but that is done with no design of destroying contagion.

If lodging-houses were licensed, and brought under the notice of the civil magistrate, many of the causes of fever might be prevented. They might be visited, by proper officers, frequently, and regular reports of the names, occupations, conduct, &c. of the lodgers, as well as of the state of the houses with regard to infection, might be laid before the magistrates of the district. It would not be difficult to discover, at what point the want of cleanliness becomes dangerous, and as far as scouring and white-washing can remedy that defect, the hazard might be prevented. But a considerable degree of trouble and expence would attend the efforts of the inspectors to preserve the beds and bed-clothes in tolerable order. Wretches are so frequently received

into such places, in a state of extreme filthiness, that the most active benevolence must despair of supporting comfort in them by any exertions. For, as it is very difficult to convince the poor, that close and dirty rooms are noxious, there would be no great probability of their adopting willingly regulations enforced by authority. Where stubbornness and contempt would not avail, evasions would be greedily sought, and the vigilance of the inspectors baffled by every art of mistaken cunning.

To put them under some regulations, however, is certainly desirable for many other reasons. But a principal advantage, in a medical view, where the means of prevention should prove inadequate, would be the power of clearing an infected house of its inhabitants, on the representation of the inspectors, and of keeping it empty, till

till all necessary methods of cleaning and sweetening it should be employed. This plan would require the aid of fever-wards, to be established in different quarters of the town, to receive patients from infected houses, or from close cellars, or pent-up rooms, where the want of air and of proper attendance leaves little chance of escape to the sufferer. The parish-officers, at present, find clothes and blankets for the sick-poor, but beds should also be provided, on occasion. A plan similar to this has been actually practised at Bury,* in this neighbourhood, with success, and if the trouble would be greater in Manchester, the danger is proportionably great. Where so much care is already taken, to provide relief and medical assistance for the sick-poor, the superior duty of preventing their

* See Sir William Clarke's Address to the Inhabitants of Manchester, &c. on this subject, printed in 1790.

distresses may yet be hoped to come into action.*

This hope has been realized, even beyond my expectation, by the success of the fever-wards, established in 1796. of

* I have met with an instance of phthiriasis, as the consequence of a fever, which arose in a dirty lodging-house in Salford. It was situated in a narrow covered passage, ending in a back-court; the walls appeared to have been overspread with filth for many years, and the rooms were crouded with beds, into which the most loathsome objects were admitted nightly for a few halfpence. Contagion had been introduced by some of those unhappy creatures, and the mistress of the house and her son were attacked by a typhus. She soon recovered, but he lingered in a weak state for a considerable time, and after being enabled to creep abroad again, was affected with phthiriasis. He applied to me, a year afterwards, to be received as an in-patient. The complaint was still going on, and he was less emaciated and enfeebled, than might have been expected. Such are the effects of the present method of lodging the poor. They are driven to hire disease, and when fevers prevail in the families inhabiting these cells, to undergo the horror of lying in the same room, and often in the next bed, to the dying or the dead. The charity of the eastern nations provided spacious accommodations for the traveller and the vagrant, in their Caravanserais. But the eastern supineness has suffered the noblest of those structures to contract the inconveniences incident to promiscuous resort. Among the capricious dispositions so frequently made of superfluous wealth, it is rather surprising, that no benevolent Quixote has ever thought of furnishing accommodations of a similar nature for the poor of this country; especially

of which an account will be found in another volume. I have some important additions to make, to the preceding observations.

especially as fancy has evidently been far stretched to discover or even to invent objects of posthumous charity. Perhaps it may relieve the waverings of some mind, to suggest a whimsical scheme, newer, and somewhat more respectable than a hospital for cats, a retreat for persons who are born to a particular surname, or a single night's shelter for ten poor men, "not rogues or proctors." * In a building on such a foundation, constructed with a view to proper ventilation, but excavated by flues, and capable of being occasionally heated by the steam of warm water, a straw-mat and a blanket would be luxury to a poor man, who would gladly pay an equal sum for admission, to that required by a keeper of fever-beds. A bath, in a proper situation, might be ready for the preparation of impure lodgers, and coarse, clean dresses of flannel might be furnished for the night by the fund, either gratuitously, or for a trifling sum. Such a place, properly superintended, might prove an asylum to those who wish to avoid guilt, and would assure the good conduct of every person admitted, during the night. Many of the wretches who now disgrace the public streets at midnight, would be happy in finding such shelter. These are distresses from which, in extensive towns, neither talents nor virtue will always secure the unfortunate, and their relief should not be trusted to the precarious aid of private benevolence. *Savage* is known to have slept in the ashes of a glass-house, and *Johnson* to have rambled all night through the streets of London, from incapacity to procure a comfortable lodging.

* For an account of the last Institution, see the Antiquarian Repertory.

The fever generally prevalent in Manchester, and the surrounding county, is a mild typhus. But in particular seasons, it is attended by symptoms which are not clearly indicated by practical writers, and which I think it proper to mention, because they are equally unexpected and distressing to the practitioner.

In the second, or third week of typhus, when the fever appears moderate, and the probability of recovery is strong, a sudden determination takes place to the head or breast, sometimes to the bowels, accompanied with extreme pain, and the patient is carried off in the course of a few hours. I have seen the metastasis, in the genuine typhus, and in very young subjects, as rapid as the translations in gout. If the patient survives these attacks, the fever sometimes changes its type. In one case, where a typhus was unusually protracted,

protracted, after several hazardous determinations to the stomach and bowels, the fever assumed the form of an intermittent, and the patient was recovered with great difficulty, by the use of the strongest stimulants.

The frequency of such accidental metastasis as that I have described, in our fever-wards, in 1805, and the spring of 1806, was truly alarming. Dissection threw little light on their nature, and only served to shew that they depended more on changes in the nervous, than the sanguiferous system.

Towards the end of autumn, we are generally visited by remittent fevers; and I scarcely recollect a season, in which some obstinate cases of this nature have not occurred, which resisted all the usual methods of cure. A succession of melancholy events of this kind, induced me to look for a more powerful

tonic than bark or steel, and from the analogy between intermittents and remittent fever, I turned my thoughts to the employment of Arsenicum album, for the revival of which, as a medicine, the public are indebted to the late Dr. Fowler. I soon had occasion to employ it, in some very dangerous, and tedious remittents, and I found it a safe and certain remedy. It generally lessens, if it does not suspend, the second paroxysm after it is exhibited, and it effects the purpose without producing the slightest disturbance in the habit. I have generally given, to an adult, five drops of the saturated solution, every four hours, and I have seldom found it necessary to exceed this dose.

In one case, where I ordered this remedy, the remittent had continued six weeks, in another, nearly two months, without any abatement of the symptoms,

toms, and both patients were sinking fast into the grave, when they were saved by the use of arsenic. The only sensible effects produced by it, are the removal of the crust on the tongue; the appearance of a sediment in the urine; and encreased firmness of the pulse.

Having frequently experienced the efficacy of this medicine in remittents, I was induced to try it in the last stage of typhus, when neither bark, wine, or brandy, cold bathing, or occasional doses of cayenne pepper, had the effect of rousing the powers of life, or of lessening the thick crust, which lay like a black marble slab on the tongue. With such cases, every man in extensive practice must have met; it has often been my lot to encounter several of them, in the course of a few weeks. I found that the arsenical solution uniformly cleared the tongue, in two or three

three days, and that the fever gave way rapidly afterwards. The favourable alteration, after the change of medicines, was too great to admit any doubt respecting its cause, and the number of such events, which I have witnessed, leaves no room for uncertainty. It is a singular advantage, attending the use of arsenic, in these cases, that it does not operate as a general stimulant, but merely as a sound tonic. Neither the concomitancy of cough or dyspnæa, therefore, prohibits its use in typhus. The only contra-indication is a tendency to diarrhæa, or nausea. Yet I have been able to give the solution in the dose of two or three drops for a dose, even when the bowels have been very irritable, by combining it with a small quantity of laudanum.

As soon as the feverish paroxysms are stopped, I think it prudent to suspend the use of the arsenical solution, and to

to support the patient with bark, and different cordials. But I never saw any inconvenience from the use of the mineral, excepting a slight soreness of the throat and lips.

I also make it a rule to delay the exhibition of this medicine, till it is evident that the usual remedies are not likely to succeed: in producing an agent of such powers, there ought to be a "dignus vindice nodus;" and its administration ought to be considered as a matter of solemnity, as its abuse would prove so extremely pernicious, in rash and ignorant hands.

In the course of the last twelve months, I have met with some cases of typhus, in which there was a very distressing dyspnoea, which continued during the whole fever, without any appearance of inflammation. In general, the difficulty of breathing was continual,

continual, though aggravated during the febrile exacerbations, but in one case, respiration was perfectly free, during the intervals of the paroxysms, and regularly became very difficult on the return of the hot fit.

In these circumstances, which precluded the use of bark, I had recourse to the extract of the Ratania root, lately introduced, (at least, lately known by that name) from South America, and I have found it a valuable substitute for the chincona. The intense bitter of the extract is softened to an agreeable astringency, when it is dissolved in water, (by the intervention of a little alcohol) in the proportion of from five to ten grains to an ounce, and its effects on the patient's strength and spirits are peculiarly cheering. Its flavour, in this state, strongly resembles that of port-wine, and its operation in fever appears to me very similar.

The

The extract of Ratania, notwithstanding its sensible quality of astringency, does not produce costiveness; in this respect also it frequently merits a preference to Peruvian bark.

Since the establishment of our feverwards, I have carried the practice of cold bathing to a considerable extent, in the latter stage of typhus, and in the commencement of scarlatina anginosa—I shall make some observations on this subject, in the third volume.

DILATATION OF THE HEART.

Præternatural enlargements of the heart and great blood vessels appear to be more common than authors would lead us to suppose. In the course of the last two years, I have seen a considerable

siderable number; but at present I shall chiefly mention those which have terminated fatally. I have generally found them accompanied with dropsical swellings and much flatulence; frequently with a cough and spitting, almost always with œdema of the face. There is sometimes violent pain across the breast, attended with frequent deliquium; sometimes the pain is felt across the lower part of the abdomen, especially when a degree of inflammation has taken place in the heart. The progress of the disorder is very unequal. Sometimes the palpitation is so violent, that the patient seems ready to expire, yet in the course of a few hours, it will abate, and the patient will be able to walk out of doors, insomuch that the disease frequently seems to be in a retrograde state. A patient under my care, with a considerable dilatation of the heart, after having undergone violent pains across the thorax, succeeded

ceeded by fainting, is now, at the end of a year and half from the beginning, considerably easier, and has been for some time free from pain and deliquium. Lastly, death often happens suddenly, in such cases, without any rupture of the heart.

When the apex of the heart strikes very low, it always gives the impression of a much greater dilatation than actually exists. The stroke will be felt, for example, between the eighth and ninth, or the ninth and tenth ribs, when the ventricles are very little enlarged beyond their usual size. The most certain sign of dilatation, is the jarring sensation given to the hand, by each systole. The stroke seems restrained, and is succeeded by a kind of thrilling, which cannot be clearly described, but is entirely different from the shake of a palpitation. It is necessary to be very cautious in deciding whether

whether an enlargement exists, for I have known the common palpitation in chlorosis pronounced a dilatation of the heart, and the patient nearly destroyed by the consequent mode of treatment. The pulse is very irregular; sometimes feeble, small and intermitting; sometimes extremely quick and hard; or jarring, like the systole of the heart itself. When the palpitation is violent, the head is affected with strong distressing pulsations, which patients often compare to the strokes of a large hammer. I have sometimes found this palpitation in the head more uneasy, and more complained of, than that of the heart, even when the latter was evidently dilated. Fainting fits often attend this stage of the disorder.

These are the principal facts respecting this disease, which I have collected from my observations and dissections. I shall now illustrate them by cases.

William

William Cavanagh, aged nine, admitted in March, 1790, had complained for a month before, of violent palpitation of the heart, which had then become constant; of a troublesome cough, and frequent pain in the abdomen. His legs were anasarcous, and his face was bloated. His disorder began with a slight fever, which ceased about the fourth day. He had suffered a feverish attack, once a-year, for two or three years past, but never experienced the palpitation till the last accession. The stroke of the heart, when I saw him, could be distinctly felt between the ninth and tenth ribs. Every pulsation shook him strongly, and he was so much distressed, as to be unable to lie down, or to rest above a few minutes, in any other posture than leaning on a table breast-high, upon his forehead and elbows. His pulse was variable; sometimes quick, and rather full; sometimes low and

hardly perceptible. He never complained of any pain in the chest. Under these complaints he struggled upwards of three weeks, growing worse from day to day, and at last expired without any agony, after having spit blood for a few hours. The pain in the abdomen had been very troublesome, for some days before his death.

On opening the body, the abdominal viscera appeared perfectly sound. In the thorax, the heart was not much enlarged, but extremely thickened; the pericardium adhered to it closely in its whole circumference, and indeed was almost become one substance with it. Adhesions, of uncommon thickness and strength, were also formed to the lungs and pleura, in every direction. One chord, about the thickness of a man's little finger, tied down the apex of the heart to the pleura, on the left process of the diaphragm. The lungs were sound.

This

This case might afford many reflections. The signs of extraordinary dilatation of the heart existed here, with little real increase in the size of that organ, while (excepting the cough*) no symptoms of carditis appeared, unless the pain in the abdomen ought to be reckoned such. The only circumstance that could give suspicion of the latter, was the quick progress of the apparent dilatation, yet in such an affection, there was no strong reason to suspect inflammation, at the distance of a month from its commencement. May we not, therefore, keep the probability of chronic inflammation in view, when the signs of dilatation are preceded by fever, or attended with febrile symptoms; when their progress is unusually rapid, without any obvious cause; when the pulse is often quick;

* Senac has explained the concomitancy of this symptom with diseases of the heart and pericardium, very judiciously. Traité de Cœur, tom II. p. 357.

when there is a troublesome cough; and when there is much pain in the lower part of the abdomen, without any affection of the excretions? The following case will add force to the observation of the last symptom.

E. D. aged seventeen, had pains in her feet, which sometimes produced slight swelling and redness of the parts. The pains were very irregular; sometimes in one, sometimes in both feet. When they ceased entirely, she felt great sickness, dejection of spirits, and a tendency to faint. She wasted daily; the pains often shifted to her knees, and when violent there, the skin was tinged with a dark-green colour. At length she became comatose, but complained frequently of pain in the lower part of the abdomen. She died at the end of four months from the first attack. On dissection, the contents of the abdomen appeared entirely sound; but

but the pericardium adhered closely to the heart, in the whole of its compass, and the latter appeared thickened from inflammation. The next case may perhaps assist us in distinguishing, during life, the part of the heart affected with dilatation.*

John Rowbottom, already mentioned among the dropsical patients (history X.) some time after the second removal of his swellings, was attacked by a severe diarrhæa, which was removed

* Mr. Senac has adverted to this circumstance, but with full conviction of its obscurity: "Il est certain que les dilatations des "diverses cavités (du cœur) peuvent etre distinguées. En general "les battemens du cœur ne sont pas violents quand le ventricule droit, "ou le sac de ce ventricule, sont extremement dilatés; a peine les "dilatations produisent elles des palpitations; dans beaucoup de cas, "les malades, sentent seulement un grand poids dans la region du "cœur."——"Les dilatations du ventricule droit & de son oreillette "produisent toujours des battemens dans les veines du col——" "L'absence de ces battemens, lorsqu'une dilatation du cœur est "constatée, etablit cette dilatation dans le ventricule gauche; mais "ce ventricule dilaté se manifeste souvent par un autre signe; si les "artéres sont libres, leurs battemens sont extremement violents." Traite de Cœur, tom. II. p. 327-8.

by opiates and astringents. He now complained that the palpitation was more troublesome, and that he felt it lower. No great difference, however, could be discovered by the hand; but the pulsation gave the impression of its being felt through a bladder almost full of water.* After the diarrhæ stopped, his swellings rose again, and were again removed from his legs by the use of digitalis. The abdomen did not decrease much under this last course, and after lingering in a complaining state, but not apparently worse, he died suddenly on Saturday morning November fifth. When the body was opened,† a great quantity of fat was

* Mr. Senac observes, that the fluctuation of water contained in the pericardium, may be distinctly felt, during violent palpitations, between the third, fourth, and fifth ribs. Traité de Cœur, p. 361.

† This dissection furnishes an exception to Mr. Senac's first rule for distinguishing dilatations of the sinus venosus. Indeed he does not seem to have attended sufficiently to the circumstances of the pericardium, one of which, adhesion or effusion, almost always accompanies dilatations, and affects the stroke of the heart in a particular manner.

observed,

observed, between the integuments and the muscles of the abdomen. There was much water within the peritoneum, and several large hydatids appeared in the lower part of the cavity. The liver was extremely enlarged, and scirrhous: at the first view of the viscera, it covered the stomach completely. Several irregular, white plates, of a cartilaginous nature, shewed themselves on the surface of the spleen, which was otherwise sound. The pancreas was somewhat indurated. The mesenteric glands were very much enlarged and hardened. On examining the external appearance of the intestines, marks of inflammation were very discernible; when part of the canal was opened, the villous coat was found inflamed to a considerable degree. This affection seemed to run through the whole. The kidneys were in a natural state.

In the thorax, a great quantity of water was found, with some hydatids. The pericardium was quite full of water. The right auricle, and sinus venosus were enlarged to such a size, as almost to equal the ordinary bulk of the left ventricle. The left auricle, and both ventricles were nearly in the usual state. The lungs were sound, but small.

When the pulsation, in such cases, feels remote,* and extending across the breast, as well as downwards, and when the apex of the heart does not strike the ribs very forcibly, may we not conjecture, from this narration, one or both auricles to be affected, and prognosticate a less speedy termination of the disease? This case also proves the utility of employing diuretics, even where permanent læsions of the viscera exist. Rowbottom was emptied by me-

* Diemerbroeck has adverted to this circumstance.

dicine

dicine three times; his life was thus prolonged, and its duration rendered more tolerable. The power of digitalis over hydrothorax was not sensible, however, during the last course of that medicine.

No doubt, the quantity of water effused within the thorax, and the cavity of the pericardium itself, must have had a share in the peculiar impression given by the systole in this case; but from the long intervals of relief afforded, I cannot suppose the effusion to have been in equal quantity, at every period of my attendance. An attention to this circumstance is of great importance in practice, because much relief may be administered by a proper exhibition of diuretics, when there is reason to suspect the presence of water in the pericardium. It is on this supposition that I account for the relief experienced by Rowbottom, and the following case will place it in a stronger point of view.

James

James Hamilton, aged eleven, came under my care about the beginning of December, 1791. He was affected with a constant palpitation of the heart, which had begun in the preceding May, and now prevented him from lying down, or from resting in any other position than that of leaning on his elbows. The stroke of the heart was perceivable almost under the false ribs, and extended across the thorax, but was most forcible a little below the natural place, between the fifth and sixth ribs, rather obliquely, however, than directly. The stroke was soft, but vibrating, distant, and somewhat undulating. His legs were swelled slightly, and his urine was rather less than natural. He had a very troublesome cough, accompanied with little expectoration, and heaved strongly in respiration. His face was pale and emaciated. The pulses in his different wrists were not synchronous, either with the heart or with each

each other. From these circumstances, there was reason to suspect water in the thorax, and particularly in the pericardium. I put him on a course of spiritus ætheris vitriolici, with small doses of laudanum. In a short time he began to discharge more urine, and the palpitation was sensibly relieved. He was then able to lie down, and to sleep on either side without disturbance. The swellings of his legs likewise disappeared. At the end of a few weeks, he was tolerably free from uneasiness, and his cough began to leave him. The stroke of the heart was now more circumscribed, and felt firmer, though still of the aneurismal kind, and he was sensible that it was higher in his chest. About this time, a complaint in his stomach occasioned the omission of the diuretic, for a few days. During this interval the palpitation again increased, and his legs swelled. After clearing his bowels, however, the symptoms were

were again relieved, by resuming the diuretic course. In the course of my inquiries, I found that before he came under my care, he had been attended by another physician, who, among other pectoral medicines, had ordered him squills. An increase of urine was the consequence, and temporary relief was obtained. He is at present tolerably easy and cheerful, and the disorder does not seem to make much progress. Digitalis may prove very useful in similar cases, by lessening the impetus of circulation, as well as by promoting the flow of urine, and thus contributing doubly to relieve the patient's distress. We can expect little more than to sooth, and perhaps to prolong existence in such cases.*

* Baglivi says, with his customary good sense, "in morbis pectoris, semper ducendum esse ad vias urinæ:" De Asthmate.—Probably, the great efficacy of squills, in disorders of the breast, has been often owing to the unnoticed action of the remedy as a diuretic. It is remarkable that Baglivi orders the julepum tabaci in asthmatic cases.

Palpitations

Palpitations are often so severe, as to excite suspicions of enlargement of the heart without reason. It appears, both from Cavanagh and Rowbottom's case, that the apex of the heart may strike very low, although the ventricles be not dilated. And I have found the most terrible palpitations yield to antispasmodics or tonics, used according to the patient's general habit, and to the attending symptoms.

E. H. aged eleven, belonged to an unfortunate family, which was reduced to pass the winter of 1789 in a cold, damp cellar, without beds, and very thinly clothed. They slept on tattered pieces of carpet, covered with a little straw. A fever soon rose among them, but it was this girl's lot to be seized with a violent palpitation of the heart. Every stroke of the pulsation raised up her clothes, so as to be visible at some distance, but the apex of the heart was felt

felt nearly in the usual place. She took tincture of castor, in doses of thirty drops, three or four times a-day; and this, with attention to her clothing and diet, subdued the palpitation, in the course of a few weeks.

But if we are liable to deception from the violence of such signs, there are other cases, in which the symptoms of dilatation are very trifling, and extremely obscure. Some symptoms appear, but they are misunderstood or neglected; the patient appears better, or at least no worse; and hopes of recovery are given. In the height of this security, the fatal stroke arrives: every one is astonished; and an event which ought to have been foreseen and foretold, passes for sudden death. In the following case, the symptoms of two fatal diseases, both exhibiting themselves under slight appearances, were combined. It will serve as an example of

of the treacherous calmness, with which disorders both of the heart and liver sometimes proceed.

Margaret Ellis, aged twenty-three, was first admitted an out-patient, on account of amenorrhæa, which was then her principal complaint. She had sometimes swellings of her ancles towards evening. After some time, she complained of a cough, and uneasy palpitation of the heart. She was then made an in-patient, about the middle of April, 1791. In addition to her former complaints, she had now pain in the region of the liver, difficulty of breathing, and a quick pulse. Her face was bloated, and had a purple cast. She took soluble tartar in laxative doses, but grew worse, and died suddenly one evening, just after appearing more cheerful and easier than usual. On opening the body, the liver bore marks of chronic inflammation on the whole

of

of its surface; the other abdominal viscera were sound. The thorax was full of water; the lungs were considerably diseased. The heart was much enlarged, and quite full of blood, in all its cavities.*

The duration of complaints of this kind is very various. Even when dilatations of the heart can be ascertained by the progressive descent of the apex, long intervals are sometimes indulged, during which the patient can use moderate exercise with tolerable ease. In other cases, the disorder begins, and terminates fatally, in the course of two or three months. The length of the complaint has varied, within my own observation, from a quarter of a year to nine years. There is likewise much difference in the sufferings of the patients. Sometimes, as was Cavanagh's

* See observations by Senac on this subject, tom. II. p. 415.

case,

case, it is dreadful to witness them; in other instances, like that of Ellis, the palpitation is only occasionally troublesome, and is easily borne in general. All the persons who have come under my care in this distemper, have been young. Of eight cases, which I have seen within the last two years, none of the patients were above thirty years of age. Some were under ten. A man about twenty-five years old, who consulted me seven years ago, had a dilatation of the heart, brought on by hard drinking, which killed him in the course of twelve months. In other cases, I have found the disease occasioned by raising great weights, or by too long a continuance of much bodily exertion. Frequently no particular cause can be assigned for its commencement. It sometimes appears after slight feverish attacks. I have met with two instances of this kind. But in such cases, either a slight degree

of inflammation must be supposed to have affected the heart, or an original weakness of the organ must have given a predisposition to the complaint. It is well known, that enlargements of the heart are frequently observed, in patients who die of typhus. In irritable habits, and young subjects, therefore, an irregularity in the circulation, however produced, whether by fever, or, as in Ellis, by the suppression of a constitutional discharge, may create the first tendency to this complaint. In chlorosis, such a tendency is always remarkable; and the successful treatment of that disorder, by the most invigorating tonics, may suggest a doubt, respecting the propriety of treating all incipient dilatations of the heart by evacuation. In other partial congestions, and in palsies, tonics, and even direct stimulants are given with advantage, to recover the tone of the dilated or ruptured vessels. And

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the tendency to deliquium, the weak, flatulent state of the stomach and bowels, the dropsical symptoms, owing to a delay in the return of the blood, and the languid feelings of the patient, in the *first stage* of the complaint, seem to point out a careful exhibition of tonics, as a probable method of prevention.* Even at a very advanced period, one of my patients indulged himself in the use of wine, contrary to my directions, and thought himself relieved by it; and Rowbottom, towards the close of his disorder, took four ounces of wine daily, with evident benefit. Great attention must undoubtedly be paid, in determining on such a plan, to the sex, the age, the peculiar habit and circumstances of the patient. For no case can be supposed, in which the method adopted tends more immediately to suppress, or en-

* I observe that Mr. Senac recommends the use of chalybeate waters, in beginning dilatations. Traité du Cœur. tom. II. p. 330.

courage the disease. When the dilatation has proceeded to a considerable degree, indeed, direct stimulants are generally improper, but when great languor and debility attend, they are sometimes admissible as palliatives. Indeed I apprehend, that no exclusive rule of practice can be formed in this disorder, which will not be found often useless, and sometimes prejudicial.

I shall only add, as a farther caution, that I have found a pain extending across the breast very troublesome, in conjunction with flatulence and violent palpitations, and I have seen medical men disposed to treat it as a symptom of inflammation or dilatation. But a close attention has convinced me, that it was owing to a spasmodic affection of the œsophagus; and it has been removed accordingly, by the exhibition of tonics and antispasmodics. I suspect that this symptom has sometimes been described as a case of angina pectoris.

MURIATED

MURIATED BARYTES.

The high character with which this medicine was ushered into practice, induced me to order it in several scrophulous cases. It is needless to give a particular account of my observations, for I have never found any sensible effect from it, even in doses of twenty drops, given twice or thrice a-day; excepting in two cases. There could be no doubt respecting the preparation of the specimen I used, as it was a saturated solution, made by Mr. Cooper and Mr. Watt; and I was always attentive to its being given in distilled water. In the two instances where it appeared to do service, the good effect was not very remarkable. I cannot help suspecting, that the only benefit to be

expected from it, must arise from the action of the acid, either not completely saturated, or not destroyed as a tonic, by the mineral. Several patients, whom I now attend for scrophulous complaints, are taking the acid alone with apparent benefit, who had used the muriated barytes, without experiencing the smallest alteration in their health.

REMEDIES OF INSANITY.

It is very difficult to describe complaints of this kind; and expectation is disappointed in the event so frequently, that practitioners are easily discouraged from attempting improvements in the method of cure. Books are so defective, on this subject, that analogy must be the principal guide, in counteracting these dreadful affections, as they resemble, more or less strongly, nervous

nervous and hypochondriacal complaints. I have used the different methods recommended by the few good writers on insanity whom we possess, and have joined those employed by physicians now eminent for the cure of such distempers. Some of my observations follow.

1. *Tartar emetic.* The exhibition of this medicine, in nauseating doses, is a favourite method at present, in maniacal cases. I have used it in six cases, in two of which the patients were extremely furious, and have found it of little efficacy, excepting in one instance. It was that of a robust woman, about twenty-five years of age, who had been insane a few years before, and had now relapsed into a state of furious mania. Her tongue was foul, and her pulse quick. She took emetic tartar, in sufficient doses to support a constant slight nausea, and had a blister

applied, about the same time, to the crown of her head. In a day or two, she appeared rather more composed, and as she found farther relief from the continuance of the medicine, it was given for a week together. At the end of that time, she was sensibly calmer, though there was yet no appearance of recovery. I then dropped the medicine, put her on a course of whey, and on low diet, and kept her bowels freely open with magnesia. This method was continued for fifteen days. She was then ordered, in addition, an opiate every night, at bed-time, and was occasionally purged with black hellebore. Signs of recovery began to appear, under this method; she became dull, and at last tractable and quiet. Her reason returned gradually, and after being completely rational for more than a month, she was discharged cured, at the end of four months from the time of her admission.

2. *Camphor.*

2. *Camphor.* This remedy has been strongly recommended in cases of insanity. I wish I could add my testimony in its favour, but I have found it totally useless in these disorders, in all kinds of doses. I have given it with great attention in eight cases without any advantage. T. R. about twenty-eight years of age, a strong active man, formerly addicted to debauchery of every kind, came under my care, about a year ago. He was in a state of the highest fury, slept none, and raved without intermission. I gave him fifteen grains of camphor, with two grains of opium, and finding that produce no effect, added eight or ten grains of musk. As the mania did not lessen, I went on, till he took two drachms of camphor, a scruple of musk, and eight grains of opium, a-day. This quantity did not produce sleep, nor make the smallest impression on the disease; I therefore discontinued it, and had recourse to,

3. *Opium.*

3. *Opium alone.* The favourable account of the effects of opium alone, given in large quantities, which BERNARD HEUTE has produced, in the appendix to Wepfer's Historiæ Apoplecticorum, induced me to try it with this patient. Accordingly, the anodyne solution, prepared in Dr. Heute's manner, was given as he directs, till we reached the quantity of sixteen grains of solid opium in the day. The patient was not at all better, however, and I had recourse to other means. I have tried the power of opium alone, in several other cases, though not to an equal extent, but with no sensible benefit to the patient.

4. *Digitalis.* Since this remedy became fashionable, it has been sometimes employed with success, in cases of melancholy. The sympathy often observed between the kidneys and the brain, has induced practitioners to use diuretics

diuretics for the removal of insanity, and they are said often to do service. When a medicine, like digitalis, unites strong diuretic to narcotic powers, considerable advantage may therefore be expected from it. I have, accordingly, given this remedy even to nauseating doses, but with no advantage. It never suspended the appearances of insanity for a moment. That other diuretics may be useful, I have no doubt, for I have found the infusum diureticum of the former dispensatory, (a cold infusion of salt of tartar, and wormwood ashes) give some relief.

5. *Antiphlogistic regimen.* Many of the patients, received into our lunatic hospital, bring on their disorder by hard drinking. In such cases, low diet, and saline purgatives generally restore health in a moderate length of time. Under such circumstances, any attempt to suppress the disease suddenly,

denly, I apprehend, would be unsafe. Perhaps maniacal paroxysms have something like a period, and ought to be considered as an acute state of the disease. I have used antimonials in them, however, without success.

6. *Bark with opium.* In cases of deep melancholy, where there was evidently a relaxed state of the solids, and in maniacal paroxysms, where the appearances resembled those of the low delirium in fevers, I have employed the bark, combined with opium and aromatics, with the best effects. I shall give one case, as an example of this method of treatment.

A. W. aged sixty, admitted August 30, 1791, laboured under a total alienation of mind. Her aspect was extremely dejected; her skin yellow; she often groaned and wept, and was perpetually muttering to herself. Her pulse

pulse was low and languid. She was ordered two drachms of the electuarum peruvianum, and two grains of opium, morning and evening. For some days, little alteration was perceivable, but about the twelfth of September, she was well enough to be allowed the liberty of the gallery, unbound. As she now slept well, I did not think it necessary to increase the quantity of opium, and she went on as usual. At the beginning of October, her reason had returned in a very great degree. Her legs now began to swell, but were soon reduced, by rubbing them with flour of mustard. She recovered gradually but steadily, and was dismissed perfectly well, on the twenty-ninth of October.

7. *Bathing.* The repeated use of bathing, either warm or cold, is strongly recommended by the best writers. In cases of melancholy, I commonly

commonly use the latter, in mania the former. If a maniac be continued in the warm bath for a considerable time, he will become entirely passive. Immersion for half an hour, exempting the head, of course, commonly produces this effect. T. R. the commencement of whose case I have given before, continued in a furious state, notwithstanding the different methods tried with him. I then determined to make him use the warm bath, for half an hour at a time, every other morning. I was induced to try this practice, by the praises bestowed on it, in Pomme's *Traité des affections Vaporeuses*, where he declares that he has kept patients with hysterical mania, in the warm bath, from ten, to twenty-four hours together. It required five or six men to carry our patient into the bath, but its relaxing effect was so great, that one person returned him to his bed, with as much ease as if he had been

been a child. His limbs became entirely pliant, and he lay in a sort of comatose state, for some time after being put to bed again. Upon recovering from this degree of torpor, he was calm, and more rational. The crown of his head was also shaved, and a spunge filled with cold water was laid on it for a considerable time every day, changing the water as it lost its coolness. The bathing was continued, till the tenth of November, when his fury had completely subsided, and he fell into the harmless, stupid state, which usually succeeds maniacal paroxysms. He was soon allowed to walk in the gallery, and continued to recover his reason, by very slow degrees, till the beginning of March, when the only remains of his insanity consisted in a remarkable degree of sluggishness. He had been using tonics, moderate doses of opium and camphor, and occasionally, black helle-

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bore as a purgative. I now ordered him to be electrified every day, which roused him considerably, and produced a rapid change. I kept him nearly two months in the house, after he became apparently well, to ascertain the permanence of his recovery, and he was dismissed, cured, on the fifth of May.

8. *Drains.* Melancholy and mania are sometimes produced by the suppression of habitual eruptions, or discharges, and sometimes cured by restoring, or imitating them. A few years ago, I was consulted by the friends of a young gentleman, who had fallen into a melancholy state. I found, in the course of my inquiries, that he had been subject, in spring, for several years, to an eruption of the herpetic kind, about the back part of his neck, extending to his right shoulder; and that on its failing to appear, he had once before become melancholy. It was

was deficient at the time of my seeing him. I immediately ordered a seton to be passed at the nape of the neck. No change was observed, till it began to discharge. But when suppuration took place, at the end of three or four days, a very fœtid matter began to come away, and the patient was evidently better. His mind became every day more and more confirmed, and with the assistance of exercise, sea-bathing, and a tonic regimen, he soon recovered completely.

L. H. aged forty-eight, admitted July 16, 1791, was in a very low, desponding state, and fancied she had destroyed part of her family. I put her on a course of camphor and opium, interposing the cold bath, and occasional purgatives; but she did not begin to recover, till the beginning of September, when I ordered a seton to be put in the nape of her neck. As

soon as it began to suppurate, she was sensibly better; she afterwards improved daily, and was discharged perfectly well, in October. Blisters generally answer very well, when patients are not sufficiently tractable, to submit to drains that require more management. But sometimes it is not sufficient to excite simple ulceration on the surface, for when a peculiar eruption has been suppressed, it may become necessary to renew it in a specific manner. I was informed, some years ago, of a case of epilepsy, brought on by the retrocession of the itch (in consequence of some external applications) which resisted all the usual remedies, and became more and more violent. The gentleman who told me the case, proposed to inoculate the patient for the itch. His expedient was adopted, and a plentiful crop of the eruption produced, which freed the patient at once from his fits. The cutaneous disease

disease was afterwards cured, with proper caution, and the patient restored to perfect health.

A peculiar affection of the skin frequently appears to usher in maniacal paroxysms, and sometimes to attend them throughout. The state of circulation on the surface, therefore, has always been an object of importance to me, and though I have sometimes failed in altering its morbid condition, yet I think it an indication never to be neglected. When critical eruptions do appear, in complaints of this nature, they give immediate relief.

I have sometimes been able to predict the return of maniacal fits, by observing a peculiar constriction of the skin of the forehead, attended with a slight leaden tinge; the patient's features commonly appear somewhat sharper than usual, at the same time.

9. *Bleeding, and topical evacuations.* General blood-letting is a valuable remedy in young plethoric subjects, when the patient is not totally unmanageable. But in the frantic state, when almost every muscle is in violent action, it would be very difficult to perform it, and very dangerous to trust the wounded vessel to any bandage. Repeated bleeding, though so strongly recommended by Sydenham, would, I am persuaded be hazardous; for I have often had occasion to remark, that the strength of a maniac is easily, and sometimes suddenly reduced, by evacuating remedies. I have known a single vomit, by emetic tartar, bring on a dangerous degree of debility, in consequence of a brisk, but not uncommon evacuation. The action of cupping, leeches, and blisters is attended with no danger, and may almost always be made to answer the purposes of general blood-letting. And in all cases, it is a necessary caution, that

that while maniacs bear large doses of opium and other sedatives with impunity, we must not reckon on their supporting remedies, which directly weaken the moving powers, in an equal proportion.

LINIMENT FOR THE LUMBAGO.

Since the publication of Dr. Home's prescription of a camphorated liniment, in this disorder, I have used his formula, or one nearly resembling it, in several cases, with success.

Mr. C——, in consequence of exposure to cold, complained of severe pain in the region of the loins, which obliged him to sit almost double. It had continued about a week, when I saw him. I ordered the camphorated

liniment to be applied: his pain was relieved next day, and at the end of three days was entirely removed.

Mr. ——, after a fall from horse-back, was seized with acute pain at the upper part of the os sacrum, which affected his walking, and distressed him greatly on sitting down or rising up. After suffering it near a fortnight, and finding it rather increase than lessen, he applied to me. I directed the application of the liniment, which relieved him considerably in the course of a few hours. In less than forty-eight hours, he was completely free from pain, and suffered no relapse.

William Shipton, aged thirty-four, was admitted November 23, 1791, with sciatica and Lumbago, to a very considerable degree. He had been ill for several weeks. I ordered the camphorated liniment to be applied to his back

back, and an issue to be opened by an escharotic, on the outside of the thigh, near the great trochanter. His back was much easier, in two days, and the plaster was renewed. In less than a fortnight, the lumbago was entirely removed, by repeated applications of the plaster, and he was discharged free from complaint, on the nineteenth of December.

I have employed this remedy in many other cases of lumbago, both in private and hospital practice, with success. The form which I have generally used in the latter is, two drachms of camphor, an ounce of basilicon, and half an ounce of black soap. It commonly removes the pain within three days, often in a much shorter time. I now add, with evident benefit, a scruple of the flour of mustard to this composition. I continue to find it very generally successful.

The powers of camphor, externally applied, especially when dissolved in a spirituous menstruum, appear to be very great. In a painful affection of the joints, of seven years standing, accompanied with exostoses of the internal condyle of each os femoris, and extreme stiffness of the articulations, I have found a solution of camphor in vitriolic æther suspend the patient's sufferings, after all other applications had failed. And in the case of a gentleman, threatened with a white swelling, the pain, which was very acute, was always taken off for three hours, after the use of the same composition.

EFFECTS OF DIGITALIS

IN ACTIVE HÆMORRHAGE.

The remarkable operation of digitalis, in retarding the pulse, has naturally suggested its use in cases of active hæmorrhage. It appears to be particularly indicated, where a tendency to relapse is preserved, after the usual methods of checking the evacuation have been carried as far as prudence, and the strength of the patient will justify. I have only tried it in the following cases.

1. John Fitton, aged forty-six, about six weeks before his admission, had overstrained himself in dragging a fish-pond. The consequence was, a spitting

ting of blood, which did not proceed to excess at any one time, but returned once in four or five days, upon very slight exertions. His pulse was hurried, irregular, and somewhat sharp; about ninety-five. He was inclined to costiveness. I ordered him nitre with conserve of roses, and occasional laxatives; enjoining him rest, a low diet, and the use of cold liquids. The hæmorrhage returned, however, two or three times in the course of a fortnight. I then brought him into the house, and gave him the infusum digitalis, in increasing doses. He began with one table spoonful in the day, and went as far as six without inconvenience. In three or four days, his pulse was sensibly slower, and more regular, but his cough was troublesome, for which he was ordered a linctus. He remained a fortnight in the house, without any return of the hæmorrhage, and was dismissed, apparently in perfect health,

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near two months ago. I have not heard that the hæmorrhage has recurred.

2. John Walsh, aged twenty-two, was admitted, November 28, 1791. He had been subject to frequent returns of spitting of blood during four months, whenever he used exertion. He had also a tickling cough. His pulse was quick, but rather irregular. He took the infusum digitalis, in the same manner with the preceding patient, but never exceeded four table spoonfuls a-day. By the use of this remedy, the tendency to renew the disorder ceased, and he was entirely free from hæmorrhage, in the end of December.

3. —— Higgins, aged twenty-eight, admitted December twelfth, had been seized with a spitting of blood more than a year before. He had lost a leg.

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The hæmorrhage returned frequently, but never in a violent degree. He was seldom free from it above two days together. The infusum digitalis was ordered, in increasing doses. His pulse was oppressed, but not strong; upwards of ninety in a minute, and irregular. On the twenty-sixth of December, he had taken three table spoonfuls of his infusion a-day, without inconvenience, and had been free from hæmoptöe for a week. His pulse was more free and regular, and about eighty. The dose was ordered to be increased, and he continued to use the medicine till the middle of January, when he was discharged, cured.

4. James Sharples, aged twenty-three, admitted December nineteenth, was attacked by a spitting of blood three days before. He complained of tightness in his breast, heat, and of a tickling previous to the discharge of blood.

blood. His pulse was quick, and rather full. I ordered him to lose twelve ounces of blood, and afterwards to take the infusum digitalis, with the usual precautions. On the twenty-fourth, the spitting returned in a slight degree, occasioned by his being very costive, but ceased on procuring him a stool, by means of oleum ricini. He was then taking a spoonful of the infusion four times a-day. On the twenty-fifth, he was free from hæmoptöe; but his skin was hot and moist, his pulse considerably above an hundred, and his breathing quick. I therefore directed the dose to be increased, and enjoined a strict observance of the antiphlogistic regimen. On the twenty-sixth, his pulse was between eighty and ninety; on the twenty-eighth, it was about eighty-six, and he had experienced no return of hæmorrhage. He was again costive, and griped. Three stools were procured by a dose

dose of oleum ricini. On the thirtieth, he complained of sickness; he was then taking six spoonfuls of the infusion a-day. He had been free from the hæmorrhage for a week. His pulse was under eighty, and much calmer. I therefore desired him to lessen the dose of the infusion. On the thirty-first, the sickness had ceased; there was no hæmorrhage; his pulse was about seventy, and inclined to intermit. His cough was still troublesome. The dose of the infusion was then reduced to two spoonfuls a-day. His cough continued, but was less troublesome, on the fifteenth of January.

All these cases of hæmoptöe occurred to me, after the setting in of the hard frost, in December, 1791.

HYDROPHOBIA.

HYDROPHOBIA.

I have only met with one case of this disease. An account of it was published in the first volume of the Medical Facts and Observations, containing little more than a simple narration of the facts. I have thought, that the importance of the subject required its insertion here, with some additional remarks.

John Johnson, a labouring man, while he was at work in a by-street, some time in July or August, 1790, was slightly wounded in the left cheek, by a strange dog, which snatched at his face in passing. He suffered the animal

animal to pass unregarded, and thought no more of the accident. The bite healed very quickly. In the succeeding October or November, he was attacked by stitches in the breast and sides, and a severe cough, which were all removed by the usual remedies. I could obtain no accurate information respecting these dates. In the end of November, 1790, his pneumonic complaints returned; he was then twice bled, and had two blisters applied, with considerable relief. On Monday evening, November twenty-ninth, he was persuaded to drink some warm gin and water, before going to bed. His wife observed that he took it with reluctance and apparent difficulty, and on inquiry, found that his attempts to swallow it gave him great uneasiness. This symptom increased very fast, and soon became the principal complaint; but during all this time, the circumstance of the bite was not recollected either

either by the patient or his wife; nor did any suspicion of the true nature of the complaint occur to them. On Thursday evening (the fourth day) a neighbour mentioned the poor man's situation, to a medical gentleman, and particularly dwelt on his aversion to liquids. This produced an inquiry whether he had been bitten by a dog of suspicious appearance. It was some time before Johnson could remember that he had received a slight bite, but the recollection alarmed him; and a recommendation to the infirmary was procured, in consequence of which, I saw him on Friday morning (fifth day).

I found him feeble, affected with tremors, and extremely irritable. His eyes were wild, yet fearful, and he turned with great quickness, towards the slightest noise. His discourse was faultering and somewhat incoherent, and his manner timid and suspicious.

He was unwilling to own his aversion to water, and was desirous to be told, that the dog was probably not mad. His pulse was weak and irregular; his tongue white; his evacuations were natural.

When I desired him to drink a little water, he shewed strong marks of disgust, but with some encouragement, was prevailed on to make an effort. As soon as he took hold of the cup, I perceived some spasmodic contractions of the muscles of deglutition; when he raised it towards his mouth, the muscles on the cheeks were strongly contracted, and a sort of convulsive gulping came on. He threw some of the water into his mouth, in a great hurry, but it was returned at first; a small quantity at last got down, with a violent struggle on the part of the patient, who extended his arms, and clenched his hands, while it was passing.

ing. Deglutition was attended also with considerable, irregular noise in the œsophagus. The admission of cold air into the room gave him similar uneasiness. When the outer door was opened, he immediately put up his hand to the anterior part of the throat. When asked where the impression was felt, he pointed to his throat, immediately under the thyroid cartilage. He always swallowed solids with great ease.

The scar on his cheek, which was between the ear and the angle of the jaw, but rather more advanced, was hardly discernible. He felt no kind of uneasiness in it, and there was no discoloration. His wife remembered to have seen it bloody. He was about thirty-nine years of age, and had been very sober and industrious. I sent him to the infirmary immediately, and ordered him to take a bolus, containing

a scruple of bark, six grains of musk, and half a grain of opium. He was immersed in the cold bath, and was urged to swallow, as often as possible, a draught of vinegar and water. I was informed that the sound of water distressed him, and being desirous of ascertaining the fact, I directed a large jar to be emptied in the adjoining passage. He was evidently alarmed, and begged to be sent home, but would not acknowledge that he was afraid of water.

At five o'clock in the afternoon, we met in consultation, when the horror of water, and difficulty of swallowing liquids, were ascertained in presence of all the physicians to the house. It was now late in the fifth day of the disease, and the patient was evidently much enfeebled. We had therefore nothing to expect from medicine, but it seemed right to attempt whatever the situation of our patient could justify.

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We agreed to scarify the cicatrix on the cheek deeply, and to apply a blister over the incisions; a bolus, containing a scruple of bark, fifteen grains of musk, and two grains of opium, was directed to be given every four hours; two drachms of strong mercurial ointment were rubbed in upon the throat, arms and groins; a mixture of eight ounces of distilled vinegar, and twelve ounces of decoction of bark, was ordered, of which three or four table spoonfuls were to be given as frequently as possible; and a poultice, consisting of three drachms of galbanum, two scruples of opium, and one drachm of camphor, was applied, after the mercurial friction, to the throat.

About nine o'clock, the same evening, I saw him again. He had swallowed his medicines without much reluctance, but was incoherent, and complained greatly of cold.

During the night, his delirium increased; he was restless, impatient and intractable. He had never shewed any disposition to injure the people about him, but he now threw himself out of bed, and resisted the keeper who attempted to replace him, so that it was necessary to apply the strait waistcoat. However, he took four boluses, and swallowed more than a pint of his mixture. He had one stool before morning.

At nine o'clock on Saturday morning, the sixth day, we met again in consultation. We found that his difficulty in swallowing liquids was less; he had taken some very thin porridge, the usual breakfast of the house; and he drank several mouthfuls of his mixture in our presence, without any striking appearance of disgust. But his eyes were heavy and inclined to fix; his pulse was much sunk; and there was

was a constant tendency to low delirium. We therefore concluded that the termination of the disease was near; but agreed that the method we had adopted should be pursued, while he was capable of swallowing. Before I left him, he retched several times, and brought up some wind: half a grain of emetic tartar was directed to be added to his next bolus, but he did not live to take it. At a quarter past ten he swallowed some of his mixture, and immediately after threw up part of it again. He then fell into convulsions, and died in the course of a few minutes.

I was very desirous to have the body examined as early as possible, that the appearances attending this dreadful disorder might be fairly ascertained; the inflammation of the stomach, described in former dissections, having been often attributed to the action of

the gastric juice. Accordingly, the body was opened by Mr. Simmons, at a quarter before three o'clock, on Saturday afternoon, in presence of most of the physicians and surgeons to the hospital.

In the brain, the only præternatural appearance was, a distention of the pia mater, on the surface of both hemispheres, with a limpid fluid. The quantity of fluid in the lateral ventricles, at the basis of the brain, and round the spinal marrow, appeared to be somewhat unusual.

In the thorax, the lungs were uncommonly sound, excepting one slight adhesion at the posterior part of the left lobe. The trachea was perfectly sound. The pericardium adhered pretty firmly to the heart, in its whole compass.

In the abdomen, the stomach and intestines seemed, externally, sound; but on opening the lower part of the œsophagus, a morbid appearance presented itself. About two inches above the cardia, the epidermis of the œsophagus was abraded in irregular points, and exposed an inflamed surface of a dark red colour; still lower, the abrasions became linear, and extended into the stomach itself. The edges of the epidermis, surrounding the abrasions, were unequal and elevated. A similar affection was traced along the lesser curvature of the stomach, but growing fainter in its progress, to the pylorous, where it was least discernible, and about which it seemed to terminate. The whole of the inflamed parts bore a striated appearance, resembling the effect of corrosion, darkest in the œsophagus, and lighter and more indistinct towards the pylorus. The stomach was half full of a dark-coloured fluid, which smelt strongly

strongly of musk. The other viscera were in a natural state.

The length of time which intervened, in this case, between the bite and the appearance of the disorder, was nearly the space usually observed. As almost every circumstance of so dreadful, and so intractable a disease is regarded with wonder, this interval has always been marked as a striking peculiarity. It is well known, however, that the action of morbid contagion on the system is always delayed for a certain time after its introduction. In the infection of fevers, the interval often consists of many days, and has even been said to have extended to three weeks. The venereal poison, applied to the urethra, has been known to produce a gonorrhæa, after an interval of a fortnight; and some days always elapse before it exerts that action. The fact respecting hydropobia is

is therefore not singular in its nature, although the duration of the interval is unusually long.

As the principal morbid appearance in this body, was a peculiar inflammation of part of the stomach and œsophagus, not sufficient to account for the death of the patient, I apprehend that we must still consider hydrophobia, as a nervous disease, of unknown nature. I believe we may fairly consider the appearances I have described, as the proper effects of the disease, since four hours and a half only elapsed, between the death of the patient and the dissection; especially as the stomach contained a considerable quantity of fluid. It is evident that such a state of the œsophagus, joined to an increased irritability of the system, affords an easy explanation of the peculiar sensibility to cold water and cold air. But the general disorder has been known to exist

exist without this remarkable symptom;* the dread of water, therefore, which has been always considered as constituting the diagnosis, is in reality only the symptom of a symptom. It must be observed, however, that in Dr. Vaughan's two cases of hydrophobia, though the dread of water had been felt by both his patients, no inflammation of the œsophagus or stomach appeared on the dissection of either. Indeed the case before us shews, that the terror of water does not originate from the local inflammation alone, for the patient was able to swallow liquids for some hours before death, though the inflammation was certainly existing, and perhaps proceeding at that time. The cessation of this symptom a short time before death, which has been observed in some other cases,

* Mead on the Bite of the Mad Dog. Lieutaud, Precis de la Medicine pratique, Art. *Hydrophobia.*

is

s therefore probably owing to the decrease of irritability. The ease with which solids were swallowed by this patient, admits an obvious explanation. In the diseased state of the œsophagus, the comparatively small degree of contraction, necessary for the descent of animal food, is performed without difficulty. For the deglutition of liquids, a very strict contraction is required, which strains and irritates the inflamed parts, and consequently occasions great distress.

In the total want of discriminating characters of the general affection in hydrophobia, it is no wonder that recourse has been had to analogy; though the fallacy of that method is remarkable in nothing more than in pathological discussions. The close resemblance between this disorder, and some cases of tetanus, has been fully established by Dr. Percival and Dr. Rush, and perhaps this important parallel includes the

the principles, on which hydrophobia may at some future period be treated with success. The facts now ascertained, of this disorder arising sporadically, and of its having proved a consequence of simple wounds, or other injuries done to the extremities, without the intervention of any virus, while they prove that hydrophobia is not always the effect of a specific poison, afford room to hope that it may yet be cured, without the discovery of a specific antidote.*

The prevention of hydrophobia, I apprehend, is only to be expected from the immediate destruction of the bitten part. This may be effected, either by excision, or by exploding with gunpowder. Perhaps it would be better, afterwards, to promote the ulceration of the surrounding parts, by cantha-

* On these points my sentiments are now considerably altered. See Vol. 3, Art. Hydrophobia.

rides,

rides, than by the usual method of caustic. The action of the latter may be too slow to answer the purpose. That the exhibition of internal remedies, or the use of simple external applications, should have been supposed to prevent the accession of hydrophobia, can excite no surprise, when it is considered, that a small proportion only of persons really bitten by a mad animal, is liable to suffer the disorder,* even when the bite is effectually inflicted, with the infusion of the saliva; that many circumstances may attend the effort to wound, which may obviate its danger; and that the madness of the animal is too frequently left a subject of conjecture.

When the disorder is ascertained, very opposite methods of cure, supposed to have been successful at different times, offer themselves to the mind of the

* See Dr. Fothergill's Case of Hydrophobia, p. 23.

practitioner,

practitioner. On one hand, large and repeated bleedings, succeeded by considerable doses of musk and opium on the other, mercurial frictions and the warm bath; while the probable analogy between this disease and tetanus, impresses the advantages of cold bathing, and the most powerful tonics.

In different seasons and countries, the degree of inflammatory tendency, in hydrophobia, may be very different; but as a state of extreme irritability always seems to accompany its advanced stage, I should conceive blood-letting, at least when repeatedly used, to be a very doubtful remedy. In my patient, it was prohibited by the state of the pulse, the advanced period of the disease, and the free use which had been previously made of it.

Opium affords a less equivocal assistance, and is indeed strongly indicated in

in the confirmed state of hydrophobia. The analogy of tetanus appears to encourage expectation from this remedy; but in a disease which, like hydrophobia, exhausts the powers of life so quickly, opium cannot, perhaps, be safely given to an equal extent. It may probably do most service, in combination with a tonic course.

The large use of mercurial frictions is said to have proved successful, in this disorder. This method was perhaps originally suggested, by the determination to the salivary glands, so remarkable in the course of the complaint. If sufficient time were granted for the action of the mercury, I should have great doubts respecting its operation. Why should irritation so powerful be added, in a state where excessive irritability is the principal complaint? The tendency to inflammation in the

stomach and œsophagus, appears also to contra-indicate the use of mercury.

The use of the warm bath was found to give great relief, in the case related by Dr. Fothergill. Perhaps, when the inflammatory symptoms run high, and when rigid spasms take place, a long-continued immersion in the warm bath may, as in other spasmodic disorders, prove beneficial.

But if the analogy traced between hydrophobia and tetanus may be trusted, we must in general expect the cure of this disorder from the free employment of bark and cold bathing, joined with an ample, but judicious exhibition of opium. At all events, a fixed mode of practice should be instituted in every case; and the practitioner ought not to take off from the power of any one course, by mixing it indiscreetly with other methods.

The

The efficacy of oil, largely used, both externally and internally, has been lately asserted in this distemper. Lubricating applications may sometimes quiet the irritation, in the inflamed œsophagus, and are therefore not to be overlooked. Oil will also be more readily swallowed than other liquids.

A thin mixture of vinegar and bran is said to have cured some animals of hydrophobia, in France. If patients can be induced to swallow such a mixture, there can be no objection to it. Perhaps the admixture of something approaching to solidity, like bran, may render deglutition easier. As we have reason to conclude that some degree of inflammation subsists, whenever hydrophobia comes on, it will be proper to use some means of removing it. The application of blisters to the throat may therefore be adviseable; and if the patient could bear the steam of

warm water, it might be inhaled with advantage, after lubricating the fauces and œsophagus by giving a mouthful of oil. The dreadful resolution of destroying a hydrophobic patient can never be necessary for the safety of the attendants, and is not justifiable upon any principle in the medical superintendants. I believe it is a very false idea, that persons in such unhappy circumstances attempt to injure the bystanders. Timidity, on the contrary, seems the prevailing feature of the disorder. And obedience can at all times be commanded, by the strait-waistcoat even when convulsive motions are apt to come on. I fear it is not unnecessary to add this caution to the rest; for I remember an instance of such a resolution, executed with circumstances of peculiar barbarity, on a poor child, about nine years ago, by the direction of the medical attendants, a few days after the sufferer was seized with hydrophobia.

ORIGIN

ORIGIN OF

CONTAGIOUS AND NEW DISEASES.

In popular questions, the topics of discussion frequently arise from particulars of the smallest importance. While innumerable methods are proposed for supporting the poor of this nation, with the least possible expence, it has not been sufficiently explained to the public, that their present situation is extremely dangerous, and often destructive of health and life, to the middle and higher ranks of society. The poor still labour under those hardships which appear to have occasioned the frequency of pestilential diseases,

in earlier states of society. Their habitations are scanty, close, and filthy; the comforts of frequent change and renewal of apparel are unknown to them; their food is often inadequate to their exertions; and this circumstance, joined to the mortifying sense of their condition, produces a continual depression of spirits, out of which they can only be roused by the use of strong liquors. From these causes result consequences so extensively and dreadfully felt, that it will be proper to strengthen my assertion of them, by shewing that I adhere in it to the opinions of the best writers. Most of the ancient writers agreed that new diseases were frequently arising. Barchusen, in his chapter de Morborum Novitate, says, "Plerique veterum inter se conveniebant, pauca intercedere, sed plura morborum genera indies exoriri." This is not true of the small-pox and measles only, which appeared

appeared in the middle age, or the lues, sudor anglicanus, and other diseases well known to be of late date, but the time when hydrophobia and elephantiasis were introduced into Europe is marked by Celsus* and Pliny;† Plutarch agrees with them, in the traditions relating to these diseases.‡ Dio Cassius§ mentions a new disease contracted by the Roman army in Arabia Eelix. Another disorder, the lichenæ, or mentagra, which is now lost to us, (if it has not degenerated into the cynanche parotidæa, or MUMPS) was imported from Asia to Rome, and raged among the nobility, according to Pliny.¶ That shocking

* Lib. III. cap. xxv. † Lib. XXXVI. cap. i.

‡ Symposiac. 8. Quest. 9. Cælius Aurelianus, however, says, that hydrophobia was previously known, but by a different name. Lib. III. cap. xv.

§ Lib. LIII. ¶ Lib. XXVI. cap. i.

disorder, the plica polonica, made its first appearance in the last century. Claudinus asserts this, in his Practice of Physic, and I have seen (I think, in the curious treatise of Joannes Tardinus *de Pilis)* a copy of the application made by the Polish Physicians to the university of Paris, in which they describe the disease as new, highly epidemical, and baffling every effort for its cure.

Glisson assures us, in his treatise on the subject, that the rickets were first known in England, thirty years only before he wrote. Barchusen confirms the opinion of its being a new disease, confined to the western parts of this island. The croup was notoriously a disease unknown to physicians, within these thirty years, and is still confined, in a great measure, to the eastern coast of the kingdom. The leprosy was described, a few years ago, as a very acute and

and fatal disorder, in one of the provinces of France; the yaws, the sibbens, and other national infectious disorders, afford strong proofs of the variety of animal poisons, and Mr. Hunter, in his excellent book on the Lues, has given good reasons for believing, that new poisons are now produced among the poor of great cities.

The diseases arising from wretchedness, differ in this respect from those of luxury; the first are generally infectious, the latter solitary, but hereditary. This observation would furnish an excellent moral, but as it is needless to suggest it, I pass on to my next point.

All infectious animal poisons, that of the hydrophobia excepted, appear to be formed originally from the human body. This has been the opinion of almost every medical writer, since the

the publication of Sir John Pringle's book on the diseases of the army. Many separate facts of old date, had pointed out the truth, but, till the distresses of camps and hospitals presented it to that attentive physician, they were neglected and useless, like many valuable passages in the writings of the old physicians.

The facts to which I allude, relate to the first plagues of Athens and Rome. Thucydides and Plutarch ascribe the former to the multitudes of rustics, introduced into the city by Pericles, and crouded together in huts, within the walls. Livy imputed the first plague of Rome, to the number of inhabitants penned up in its narrow limits.

The opinions of physicians have been strangely divided, on the origin of infectious fevers. If, as Sydenham has asserted, the species of epidemics be infinite,

infinite, such differences might have been expected; but a comparison of accurate descriptions (which are not very common, however, in medical books) does not confirm his opinion; and it is more probable, that all explanations being unsatisfactory, authors equally felt the impossibility of acquiescing in any one.

As an acquaintance with opinions unhappily forms a large share of human knowledge, it is necessary to mention some of the principal theories relating to the rise of PLAGUE and PESTILENTIAL FEVER. I place these together, for I apprehend the plague to be a fever, attended with some unusual symptoms, chiefly produced by its violence. This opinion I have formed principally from Diemerbroek's Cases of Plague,* which have every character of

* Dr. Sydenham has industriously traced a resemblance between the plague and erysipelas, so far was he from considering the former as a peculiar disease.

accuracy,

accuracy, and are recommended by the experience and attention of that author, and by the good sense of his practice. And although the symptoms of eruptions and buboes be distinguished by individual characters in the plague, yet they do not depart, in their general type, very far from the symptoms of malignant fevers; for the latter are very commonly attended by flat eruptions, which physicians term petechiæ, and glandular abscesses are not unfrequent in them; although perhaps such abscesses are more rare at present, than they were two centuries ago.*

Diemerbroek,

*---Plurimi, iique non vulgares medici, in eam venerint sententiam, pestilentiam nihil aliud esse, quam febrem summé putridam, ac putredinis quodam gradu excellentiore solùm ab aliis putridis differentem. Sennert. tom. II. cap. cxxxi.

Hence Dr. Cullen's definition of the plague:

"Typhus, cum summa debilitate."

It

Diemerbroek, Dr. Willis, and some other eminent medical writers of the last century, supposed the plague to be always an infliction from the Deity: others, as Plempius, and some philosophers, of whom it is only necessary to name Lord Verulam, believed it to be caused by demoniacal influence.

Nec poterant quibus id fieret cognoscere causis.
Ergo perfugium sibi habebant omnia divis
Tradere.

LUCRET. lib. V. 1191.

It was a question among the physicians of the last century, whether the plague could exist without a fever. This was owing, evidently, to the rapidity with which the disease destroyed, in some cases. Diemerbroek, in his forty-first history, gives a case of a mild plague, similar to the instances we sometimes see of mild natural small-pox.

We must not suffer ourselves to be deceived by names. λοιμος, Pestis, μιασμα, only imply destruction or depravation.

Mr. Holwell, and the other sufferers who escaped from the black hole, in Calcutta, underwent in consequence, a fever which in its crisis resembled the plague.

With

With respect to secondary causes, pestilential fevers were commonly supposed to be produced by a certain state of the atmosphere, which was considered as loaded with the poison. To this supposition Mercurialis properly objected, that if the whole atmosphere were contaminated, no person could escape the disease. Sennertus therefore imagined, that the poison was only dispersed in different parts of the atmosphere. More accurate observations have proved, that the disease is propagated by contagion alone, and this might have been fully learnt from Diemerbroek's facts, though that author held the contrary opinion.

It was allowed, however, (excepting by Sydenham) that the sensible state of the weather had very little connection with the appearance of the plague, as there were examples of its being introduced in all kinds of seasons. Sydenham

Sydenham owns, that besides the secret constitution of the air, infection is necessary to produce the plague. Some physicians believed, that particular aspects of the planets occasioned the plague. The conjunction of Jupiter and Saturn was reckoned particularly inauspicious: I remember that about eight years ago, a pamphlet was published, foreboding a pestilence, among other calamities, from that event. There were some other idle opinions,* more held by philosophers than by the faculty, such as the production of the disease by ointments; which is admitted by Diemerbroek, with this necessary qualification, that the chief ingredient must be the contagious matter. But the principal secondary

* That of Paracelsus is the most curious and extravagant. He supposed that when a man, thinking of the plague, looked on the moon, he infected that planet; and that the archeüs, taking fright at the moon's appearance, became frantic, and thus produced the symptoms of the plague.

cause,

cause, acknowledged by almost all writers, and by some constituted as the essence of the disease, was putridity. The ancients appear to have acknowledged no difference between the putrefaction of the living and the dead body, and this important distinction is too much neglected by modern writers. Living putridity is only marked as *excellentiore gradu*, excepting a writer mentioned by Sennertus, Thomas Minadous, who held, that in the plague there was not proper putridity, but putridity *secundum quid;* and Frederick Hoffman, who has expressly distinguished them, but by a theory of little value: he supposes living putridity to consist in the corruption of the lymph, and dead putridity in the corruption of the blood.

The distinction between them is very obvious in some disease: the last degree of putrefaction, the absolute death

death of the solids, is so far from being the last stage of pestilential disorders, that it is a favourable symptom in typhus when the nails and extremities of the fingers mortify: patients commonly recover with this appearance, which is the NECROSIS of Sauvages. And I have been informed, by a very respectable friend, who now occupies the anatomical chair in one of the universities of a neighbouring kingdom,* that while he assisted in the late Dr. Hunter's dissecting room, he observed that bodies marked with petechiæ, therefore probably dead of malignant fevers, did not putrefy so soon as those which were entirely free from petechial appearances. I shall have occasion to observe afterwards, that the poisons produced by these two different kinds of putridity are communicated, generally, in different

* Since this essay was written, the public has lost the gentleman alluded to, Mr. Hamilton of Glasgow.

ways, and give rise to very different symptoms.

It is a general opinion, that pestilential disorders are occasioned by the effluvia of dead bodies, but there is reason to question the truth of this. When plague has appeared, in the neighbourhood of places where many bodies had remained unburied, after general engagements, other causes can be pointed out, as more likely to have produced it. But many instances can be produced, in which thousands of dead bodies have been left to putrefy on the field of battle, without causing pestilential distempers. This was not unnoticed by the attentive Diemerbroek. "Cadavera, sive hominum," "says he, "sive aliorum animalium "putrescentia pestem non generare, do- "cent multæ magnæ strages, in quibus "talis cadaverum inhumatorum pu- "trefactio nullas pestes induxit. Anno "1642

"1642 in agro Juliacensi, maxima "strages facta est, et ad minimum "8000 militum, occisa fuerunt, præter "majorem adhuc famuloruṁ, rustico- "rum, aurigarum, puerorum & mu- "lierum numerum, atque equorum "copiam innumerabilem; corpora in- "humata sub diu computruerunt, nulla "tamen pestis insecuta est. Hic in "Germania, durantibus his nostri ævi "crudelissimis bellis, etiam plurimæ "maximæ strages factæ sunt, post mul- "tas tamen illarum nulla peste sub- "sequente" (p. 31.). These facts are strengthened by a well known circumstance, that in no case could the origin of a putrid fever be ever traced to the effluvia of dead bodies in a dissecting room. Nor have fevers been observed to originate, or to rage more severely in houses surrounding church-yards, in the middle of large towns, though the stench of the putrid bodies, over-heaped in such receptacles, is often insufferably

offensive. It is true, that the putrefaction of dead bodies generates a poison which is highly noxious when received into the living body, by a wound, or any raw surface, but this poison does not seem to infect, like that of fevers by exhalation, and its first effect (unlike the other) is to occasion the death of the part where it is admitted.

It must not be concealed, that noxious effluvia frequently arise from putrefying bodies, in a certain state.* Dr Monro mentions a remarkable instance of this, in his Treatise on the Dropsy, and some later examples are recorded by Mr. St. John. But it does not appear, that in the cases he mentions

* It appears, from some late observations, made on altering the vaults of a church, in France, that the *confined effluvia* of putrid bodies produce fever, when brought into action. Perhaps this is the solution of the question.

th

the noxious effluvia produced any symptoms resembling those of pestilential fever; on the contrary, they acted by direct stimulus, occasioning inflammatory complaints, from which we may conclude, that they are essentially different from febrile contagion.

Diemerbroek inclines to think that the plague may be produced by putrid food, but the instances he produces are chiefly those of long sieges, where other causes concur in occasioning fevers; and his principal example, the plague of Marseilles, during its siege by Trebonius, fails him; for Cæsar does not say that the Massilians used putrid food, but stale and spoilt corn, which only afforded imperfect nourishment: "Gravi etiam pestilentia conflictati, "ex diutina conclusione, & mutatione "victus (panico enim vetere, atque "hordeo corrupto omnes alebantur; "quod ad hujusmodi casus antiquitas

" paratum in publicum contulerat Bell. Civil. lib. II. cap. xxii. 1.

It is now generally allowed, that effluvia of living persons, confined close situations, produces the poison fever. This has been too fatally pro by the mortality in jails and hospit Want of cleanliness certainly produ the same effects; for I have know pestilential fever produced in a n raised regiment, in quarters where gular troops are always very healt and where there is a constant ventila of the briskest kind.

It is peculiar to the animal pois that they not only give rise to a dis similar to their original, but that, h ever small the quantity applied, t convert a large portion of the fluid their own nature. Several quest arise on this subject.

1. I

1. Does contagion operate immediately on the nervous or circulating systems? From the suddenness of the attack, in many cases, after exposure, it is commonly, and I believe justly, supposed to act immediately on the nervous system.

2. Does it operate by contact only, or *ad distans?* This question once divided the medical schools; but from a variety of facts, and particularly from those of Diemerbroek, I think it tolerably evident, that the contagion of fever may be propagated by an impression on the olfactory nerves. It is usual for persons to complain of an intolerable smell about the sick, when they receive infection. This mode of infection, indeed, is resolvable into contact.

3. Does contagion produce both putridity and contagious matter? This question was never considered by those

who made the essence of pestilential fevers consist in putridity. At present, we know that a patient, labouring under a simple nervous fever, without any symptoms of putridity who communicates the disease to two different persons, may give to one a disease exactly like his own, and to the other a putrid fever. And the putrid symptoms commonly appear so late, that they may be properly referred to the constitution, and reckoned accessary symptoms.

4. Does contagion assimilate all the fluids to its own nature? I think there are strong objections to the affirmative of this question.

a Because many phenomena, in the symptoms and cure of fevers, point out a spasmodic affection, or diseased action of the extreme blood vessels, as the real cause of fever. Ample proof of this may be found in the books of Piens, Hoffman,

Hoffman, and Dr. Cullen. This affection is supported by the action of the contagion, and perhaps is strengthened as more contagion is produced. If all the fluids, then, were converted into a contagious mass, no patient could recover from a fever of a fortnight's continuance.

b Neither would a patient, after recovering from a nervous fever, cease to infect others, till the whole mass of his fluids were changed.

c Nor would pestilential diseases be so speedily cured, as we often see them, by throwing in a small quantity of bark and wine, which can only be supposed to act, by checking the morbid state of the moving fibres. Another question, connected with this, and illustrative of it, is, whether the dead body of a person destroyed by a plague or fever, be capable of communicating

nicating infection. On this subject, facts are wanting. Rondeletius (as quoted by Sennertus) asserted that he had dissected bodies dead of the plague, in presence of many of his pupils, with perfect safety. Diemerbroek is of opinion that the dead body may infect, while it continues warm. If it be true, that only a part of the animal fluids is rendered contagious, when the patient dies, the exhalation of poison must be stopped by the extinction of the disease. Many physicians of the last century, and Diemerbroek among the rest, however, believed that the putrid dead body was more infectious than the living patient.*

5. It is an important question, whether the contagious matter can be

* Forestus thought the dead body less infectious. Hoffman. de venen. Corp. Human. tom. I. p. 203. See Garmann De Cadaverum Contagio, on this subject, from p. 363 to 371.

destroyed,

destroyed, as it issues from the body. If, as Mr. St. John imagines, the poison of fevers is a peculiar *gas* exhaled from the surface, some fortunate discovery may possibly furnish us with the method of neutralizing it, so as to prevent it from infecting the patient's assistants; but experiments are, perhaps, both too hazardous and too difficult, in this case.

The sources of pestilential disorders, then, of dysenteries, and some of the worst cutaneous disorders, have been sieges, camps, jails, and hospitals. The plague itself appears to originate with the crouded inhabitants of the miserable villages in the east.

It is a fact equally alarming and true, that many persons in indigent circumstances, are exposed, in our great towns, to such evils as I have shewn to be productive of febrile contagion, and probably

probably of new diseases. The degree of misery, existing even in manufacturing towns, is only to be credited by those who have witnessed it. The poor are indeed the first sufferers, but the mischief does not always rest with them. By secret avenues it reaches the most opulent, and severely revenges their neglect, or insensibility to the wretchedness surrounding them.

In all unhealthy seasons, and times of public distress, the poorer members of the community are most deeply injured, and most easily affected by the causes of disease; all the methods of guarding against infection, or of destroying it where it has once entered, are to a certain degree expensive, and require, besides, an activity not to be expected from the sullen indolence of the poor. Their want of knowledge, and want of foresight also incapacitate them from any effectual struggles against epidemics.

In

In all these situations, the circumstances which seem, from our inquiry, to produce animal poisons, are, as I have already said, those to which the poor are still exposed.

These circumstances are,

I. Want of fresh air.

II. A deficient or improper diet.

III. Want of cleanliness; and chiefly want of a proper renewal and change of clothes.

IV. Anxiety and depression of spirits.

I have placed the last among the efficient causes, because it is not proved that the mere confinement of the effluvia of clean and healthy persons, free from mental uneasiness, can become poisonous; otherwise the close rooms of

of an elegant house might produce fevers, as well as garrets and cellars;* besides, it will be readily admitted as an efficient cause, by those who have observed the changes in sores, or stumps, occasioned by passions of the mind. Dr. Hoffman gives an instance, from his own knowledge, of death produced by the bite of a man highly enraged, in consequence of the poisonous nature of the saliva. That the poor perpetuate animal poisons, cannot be doubted. When a fever either

* Upon this passage, a writer in the Critical Review for December 1792, made the following remark; the candour, honesty, and propriety of which, I leave to the censure of the reader.

"Among the remoter causes of fevers, Dr. Ferriar does not advert "to one distinction: it is not the confinement of clean healthy persons "that occasions fevers, but the crowded small apartments of dirty "ones, though depression of spirits undoubtedly contributes to its "power."

In return for several obligations of this kind, which I have received from the writers in this journal, so eminent for its scurrility, I shall only say, in the words of Parson Adams; "Whoever they are, may "God forgive them, and bestow on them a little more sense, as well "as humanity."

arises,

arises, or is introduced into the house of a poor person, every circumstance favouring its progress, it generally attacks the family in succession; their clothes, and the woollen and cotton parts of their furniture become infected, retain the infection tenaciously, and are capable of communicating the disease for a long time. These they can neither afford to purify or destroy. Thus their dwellings and persons continually breathe contagion; and where this is the situation, not of one family only, but of a very great number, it is hardly possible to prevent the communication of the disease to the families of the rich, among whom it would never have been produced.

We are told by Diemerbroek, that it was a common practice in Italy and France, when the plague appeared in any large town, to drive out the poor immediately;

immediately;* so fully were the mag
strates convinced that the disease w
preserved and propagated by them.
is well known that a nervous fever
the worst kind is rendered endemic
in Edinburgh, by the practice of me
ing up families in small subterraneo
dwellings, where the contagion is co
stantly reproduced. The cellars so fi
quently inhabited, in this place, a
better ventilated than those of Edi
burgh, but may become pernicio
also, when age shall have rendered the
equally dirty. I have known a nervo
fever, which was putrid also in ma
cases, preserved in a small town, f
almost two years, among the poor alor
The manner of building practised the
was evidently the cause. The princi
streets are wide, and laid down at rig

* At the commencement of the plague of Marseilles, all l
gars were ordered to quit the town. Account of the Plagu
Marseilles, 1721.

angle

angles; but the poor are pent up in small houses, huddled together in narrow alleys, which are commonly shut up at one end. But one of the most satisfactory instances of this sort, was observed by Dr. Heysham, at Carlisle, in 1778 or 1779. A fever of the nervous kind raged in that city, which did not seem to have been introduced from any neighbouring place. Dr. Heysham, with great industry, traced its origin to a house near one of the gates, which was tenanted by five or six very poor families; these unhappy creatures had blocked up every avenue of light (as Dr. Heysham expresses it) with which even wretchedness could dispense, to lessen the burden of the window-tax, and thus contaminated the air of their cells, to such a degree, as to produce the poison of fever among them.

Thus it appears, that the safety of the rich is intimately connected with

the welfare of the poor, and that minute and constant attention to th wants, is not less an act of self-pres vation than of virtue. For we are n only exposed now, to the ravages disorders, the poisons of which perpetuated in the abodes of mise but we are threatened with the rise new contagions, the danger of whi cannot be foretold, nor perhaps t remedies easily ascertained. In t the true danger of luxury consi which I think authors have too mu overlooked: the excesses of an in vidual, in their direct consequenc affect only himself and his famil but when voluptuous habits indu him to withhold his real superfluit from the indigent, he contributes the diseases and destruction of th sands.

Accident and misfortune have often done those services to mankii whi

which wisdom would not have been permitted to render. The fire of London extirpated the plague in this country, and even the blow of an assassin once proved a salutary remedy.* Perhaps some such extraordinary circumstances must do for us, what it is in our power to do for ourselves, in disarming the virulence of animal poisons, by increasing the happiness of our fellow-creatures. To imagine, that by any human prudence, all misery (even from indigence) can be relieved, or all contagion destroyed, would be ridiculous; but as events, unexpected, or certainly not promoted with this view, have abated the frequency and violence of some epidemics, I see no reason to doubt, that prudence, by imitating such operations, may still farther lessen the evils of disease. In any event, a closer attention to the comfort of the poor,

* Schenk, Observat. Lib. 5.

than

than is commonly practised, is a desireable object of attainment; and it may excite the benevolence of some men, if they can be convinced, that acts of charity will not only serve them in another life, but promise them a longer enjoyment of the present.

END OF THE FIRST VOLUME.

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MEDICAL HISTORIES

AND

REFLECTIONS

VOLUME II.

BY

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ΜΙΚΡΑ ΤΕ ΜΕΓΑΛΩΝ, ΚΑΙ ΟΛΙΓΑ ΠΟΛΛΩΝ.

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PREFACE.

AT this time, when the attention of the medical world is supposed to be again fixed on system and hypothesis, some apology may seem necessary for the publication of a work, conducted on the strict principles of inductive philosophy. The favourable manner in which the former volume of these Essays was received, em-

boldens me to lay before the public the fruits of two years' additional labour: and I am encouraged by considering, that the most splendid theories must be ultimately judged by careful, and repeated observation.

I confess myself to be among the number of those who think, that after all the improvements in medicine, to which the present century has given rise, the science is not ripe for a final arrangement. Physicians have not pursued the instructions of BACON, for a period of time sufficient to have fulfilled his intentions; and I cannot perceive, that any of our most daring, or curious enquirers, have deviated, with

with advantage, from the prospects of that great mind. We may even obtain, from his own words, a just representation of the present state of medical philosophy, if allowance be made for the quaintness of his mythological allusions. "To say the truth, "I am of this opinion, that those two "faculties, *dogmatical* and *empirical*, "are not as yet well joined and coupled together, but as new gifts of "the gods, imposed either upon philosophical abstractions, as upon a "flying bird, or upon slow and dull "experience, as upon an ass. And "yet methinks, I would not entertain "an ill conceit of this ass, if it meet "not with the accidents of travel and "thirst.

"thirst. For I am persuaded, that
"whoso constantly goes on, by the
"conduct of experience as by a cer-
"tain rule and method, and not
"covets to meet with such experi-
"ments by the way, as conduce
"either to gain or ostentation, may
"prove no unfit porter, to bear his
"new addition of divine munifi-
"cence."*

In the mean time we have to complain, that with every attempt towards the formation of a system, new applications of words are introduced, which, though desirable in

* Bacon's Wisdom of the Ancients, sub titul. Prometheus.

the

the art of poetry, are very inconvenient in pathological books, especially when this is done to give an air of novelty to old theories and observations. For between the ancient language, which practitioners cannot entirely reject, and the new dialect, which they cannot wholly adopt, the style of medical books is reduced to a kind of jargon, that the author himself may possibly understand, but which his readers find it very difficult to unriddle. Hence results a neglect of medical literature, and hence the pernicious habit of regarding as new, whatever has not appeared in the publications of the last half-century.

To

To those who indulge a hope that a new æra is opening in medicine, that the springs of living Nature are discovered, and that their direction will henceforth be placed in the hands of the chemical physician, these remarks may appear obsolete and discouraging. But from my experience of the effects of pneumatic medicine, I am inclined to believe, that its real importance will not be quickly ascertained. It may form a valuable addition to the Materia Medica, but I do not expect from it a renovation of the science of medicine itself.

Whatever may be the opinion formed of my conclusions, I hope the

the following collection will be found accurate in point of facts. In the practice of medicine, as in all other occurrences, we derive instruction, not less from disappointment than from success. It is, indeed, painful to hear of plans disconcerted, and opinions contradicted by experience, and to toil through a course of observations, divested of brilliant events, and magnificent expectations. But I have endeavoured to convey, faithfully, the impression which I have received from a great number of cases. Whether the result be consonant to some prevailing notions, I shall not decide: it is enough for me that I know it to be true. *Non enim*

me

me cuiquam mancipavi, nullius nomen fero: multum magnorum virorum judicio credo, aliquid et meo vindico. Senec. Epist. 45.

CONVERSION

OF

DISEASES.

MEDICAL HISTORIES

AND

REFLECTIONS.

OF THE CONVERSION OF DISEASES.

1. A disease is said to be converted, when new symptoms arise in its progress, which require a different designation, and which either put a period to the original disorder, or combining with it, alter the physician's views respecting the prognostics, or the method of cure. Many instances of this kind are familiar, as the conversion of intermittents into continued fevers, or obstructions of the viscera; of hæmoptöe into phthisis, of jaundice into dropsy, and the like. Others are more unusual, and unexpected, and deserve to be noticed, because

they occasion much perplexity when they occur in practice, especially as this subject has been almost totally overlooked by medical writers.

2. We owe the first observations on the subject of Conversion, to HIPPOCRATES, and his annotators. HOFFMAN has scarcely touched on it, in his short dissertation, *de Morborum transmutatione.* BAGLIVI, though very desirous that it should be treated at length, and though liberal in promises of assistance, confines his recital of facts in a great measure to those of HIPPOCRATES. The only express treatise that I know on this subject, is the QUÆ EX QUIBUS of RODERICUS A CASTRO; a quaint title, which the author took from one of the aphorisms, and which, he says, ought to have been, *Quæ ex Quibus, in quos.* This is a book better conceived than executed; for to the usual error of that time, the making unprofitable commentaries on the *Prorrhetica*, this author has added that of considering many common symptoms of diseases as cases

of

of conversion. It is not destitute, however, of useful observations, and we can only wish, that of these the author had been somewhat more liberal.

3. This subject was formerly arranged under two divisions; when the original disease subsisted after the accession of the second, it was termed a case of *Epigenesis*, or *propagation*; when the second disease put a period to the first, it was called an instance of *Metaptosis*, *Metastasis*, or *translation*. With so loose a distinction, which excludes many cases of conversion, it cannot be wondered, that neither DURET, in his notes on the aphorisms, nor Dr. DE CASTRO, acquired an accurate knowledge of this matter. For the chief difference between the *Metaptosis* and *Epigenesis* is, that the relation of the successive morbid appearances, and their dependance upon each other, cannot be so clearly perceived, in one case as in the other. It would have been more useful, to have distinguished conversions by their influence on the event of the disease, as

some are dangerous, and generally fat others, while they terminate the origi disorder, conduce to a more speedy resto tion of health. Thus, when a continu fever supervenes to pneumonic inflamm tion, the patient is in great danger: i *gravi malo grave malum accedere*; wher diarrhœa supervenes to continued fever, certain stages, it terminates the fever ear than the regular course of the disease wo have done.

All cases of conversion may, perhaps, conveniently referred to the following he I. The supervening disease may be produ by the remote causes of the original disord in this case, the action of those causes, a producing its first effect, is prolonged s to excite a new train of symptoms. II. supervening disease may arise from the cess, or combination of the symptoms of original complaint. III. The state of habit, produced by the first disease, may g rise to a new disorder. IV. Convers may happen, from the imprudent suppres

of habitual diseases. Anomalous cases may occur from the coincidence of independent diseases, or from the mixture of two or more of these sources of conversion.

I. The application of certain remote causes may be sufficiently powerful, to produce a fresh disease, after the first has been brought on by their action. It is common to find pneumonic inflammation supervene to typhus, by a continuance of the application of cold or dampness, which operated as a remote cause of the fever. On the contrary, from the tendency of the system to inflammation, or from the manner in which cold has been applied, the pneumonic symptoms precede the fever in some cases, and even run their course, before the fever assumes a regular form. I have seen a case of peripneumonia notha end in typhus, and the typhus in mania. In a fatal case of the conversion of pleurisy into typhus, the left lobe of the lungs was destroyed by suppuration.*

* Lieutaud. Hist. Anat. Med. t. 1. p. 583. ob. 378.

In a peripneumony, symptoms of phrenitis supervened on the fifth day, and the patient died on the seventh. The left lobe of the lungs was found suppurated; the vessels of the brain were distended with blood, and the turns of the brain were filled with a bloody, serous effusion.* I have seen a general rheumatic affection, accompanied with swellings and inflammation in the larger joints, converted into a typhus in the first week: and on the contrary, I have more than once found a lingering typhus terminate in rheumatism, but this last case does not come under the present division.

I believe the conversion of the mild synochus, or typhus, to inflammation of the peritoneum, or villous coat of the intestines, may be referred in many cases to the action of the remote causes of fever. This conversion certainly terminates the original fever; and the diarrhæa, which is often a principal symptom of the inflammation, sometimes

* Lieutaud, Hist. Anat. Med. t. 1. p. 472, obs. 137.

accedes

accedes immediately after the feverish attack.* I have seen this conversion take place, and the inflammatory symptoms have run very high, when the patient was covered with petechiæ.

When the villous coat of the intestines is inflamed, obstinate vomiting is commonly a symptom, besides the distension and pain of the abdomen.†

The presence of irritating matters in the alimentary canal sometimes produces singular conversions, in the beginning of fevers. A patient, at the first attack of a rheumatic fever, was affected with epileptic fits, to which he had never been formerly subject. Suspecting that they were occasioned by the stimulus of accumulated bile, I ordered a vomit, which brought off a large quantity of green bile, and relieved him entirely from the convulsions. In the course of the fever,

* Lieutaud. lib. 1. obs. 336.

† Ib. lib. 1. obs. 334, 338.

the convulsions returned slightly, and were again removed by some doses of calomel, which always produced green stools. This kind of conversion is noticed, in Lommius's *Observationes Medicinales.*

I have seen cholera converted to typhus and as might be expected, a long and dangerous fever produced. There was an uncommon appearance of stupor, at the first attack of cholera, which continued, and increased after the symptoms of that disease were abated, but the brown list on the tongue did not appear till several days afterwards. Dysentery and diarrhœa are often converted to continued fever; but diarrhœa may be considered almost as a symptom of the feverish disposition, and as the forerunner of typhus.*

* I have met with the following curious remark, in Dr. Desgenettes' account of the diseases of the French army in Egypt. I do not recollect any similar occurrence in this country.

L' Ophthalmie apportoit toujours un soulagement marqué, lorsqu' elles survenoient dans les dysenteries de long cours: les douleurs des yeux, et celles du bas ventre, se replaçoient mutuellement:——Dr. Bruant.

Histoire medicale de l' armeè d' Orient, par Desgenettes'. Partie 2, p. 25.

Hysteria

Hysteria is not unfrequently converted into epilepsy and insanity, by the continued action of its remote causes. I have seen the discriminating symptoms of both diseases so much intermixed in the paroxysms, that it was impossible to determine which of them predominated. In one case of this sort, a conversion into mania took place, but the change was perhaps decided by the violence of the passions; in another instance, after a long struggle, hysteria prevailed. When somnambulism has attended the first appearance of such mixed diseases, I have known symptoms of oppression of the brain come on, and the patients have died lethargic.

When epilepsy has supervened to anasarca, and proved fatal, water, as might be expected, has been found on the surface, and in the lateral ventricles of the brain; the *plexus choroides* was likewise full of hydatids.*

* Lieutaud. Hist. Anat. Med. t. 2. p. 185. obs. 167.

In

In a child, two years of age, I have seen a paralysis of the right side converted to hydrocephalus; the sutures of the cranium separated.* Here, as in some other instances, the original disease was constituted, by the appearance of symptoms unusual in the first stages of hydrocephalus, although there was a perfect unity of cause. Probably, the paralytic form resulted from the superior degree of compression, which the brain must have suffered before the opening of the sutures.

†"I have at this time, July 12th, 1796, under my observation a curious instance of the convertibility of diseases. A lady, (Ætat. 26.) about a year and a half ago, was far gone in a *pulmonary consumption*; having an almost incessant cough, much pain in the left side, a quick pulse, hectic heats, and colliquative sweats. Dr. Eason first attended her, and I was afterwards called into consultation with him. In five

* Med. Hist. and Reflections, p. 102.

† A case communicated by Dr. Percival.

or six weeks from this period, an *ascites* manifested itself gradually, and with it we remarked a progressive abatement of the symptoms of phthisis. She was tapped; a considerable quantity of water was discharged; and by the use of tonics and diuretics the dropsy was completely cured. The pulmonary affections remained dormant many months: but the *cough* then returned with its former alarming concomitants. A *stupor* and almost constant *drowsiness* now took place, and at the same time a proportionate alleviation of the cough. On the 29th of June, 1796, I was called to her assistance, and found her in a state of *Lethargy*. From this she was roused in a few hours by sinapisms, volatiles, and other appropriate means of relief. When she was capable of noticing objects around her, and of answering questions, I discovered that the right eye was become paralytic, that it was nearly insensible to the light, and that she had little or no power of motion in the eye-lid. The drowsiness still continues, (July 12th.) but in a much less degree. The

The pupil of the right eye is unnaturally dilated, and the organ appears to be incapable of vision. Over the action of the eye-lid she has rather more power; but it always drops down without a strong effort of volition. To-day for the first time she complains of pain in the head. The pulse beats about ninety strokes in a minute. Her appetite is inordinately craving; a circumstance, which, in the present instance, there is no reason to ascribe to worms, and which I have sometimes observed to be attendant on cases suspected to be slightly *hydrocephalus*."

I remember a case, in which the progress of paralysis in one arm and one leg, was evidently connected with the increase of scrophulous swellings on the upper part of each of those limbs. Eight months after the appearance of the paralytic symptoms, the patient complained of severe head-ach, vision became indistinct, and at length was entirely lost. Epileptic fits then came on, and he died comatose. When the head was opened, the

the ventricles of the brain were found full of water, and several tumours, which, in the prevailing medical language, might be called scrophulous, were observed in different parts of the brain. In this instance the conversion from a slight scrophulous affection to palsy, epilepsy, and coma, was in reality the regular progress of the disease, uniform in its cause, but too obscurely indicated to be originally considered as one affection, diversified in its symptoms. It is not impossible, that scrophulous ophthalmia may be sometimes supported by similar, but less important læsions of the brain.

Cases of hysterical conversions, which belong to this head, are very common sources of error to young practitioners, and sometimes deceive even the most experienced. Whoever would present us with a good book on the *fallacy of symptoms*, which is greatly wanted, must be completely master of this unaccountable disease.

We are ignorant by what laws the body possesses a power of representing the most hazardous

hazardous disorders, without incurring danger; of counterfeiting the greatest derangement in the circulating system, without materially altering its movements; of producing madness, conscious of its extravagancies, and of increasing the acuteness of sensation, by oppressing the common sensorium. In hysterical affections, all these appearances are excited, which are incompatible with the reasonings of every system-maker, who has yet endeavoured to explain the inexplicable. Nature, as if in ridicule of the attempts to unmask her, has in this class of diseases, reconciled contradictions, and realized improbabilities, with a mysterious versatility, which inspires the true philosopher with diffidence, and reduces the systematic to despair.

I have met with several cases of hysterical hæmoptöe, in which the quantity of blood evacuated was very considerable; six or eight ounces were sometimes spit up daily, for a fortnight or three weeks successively. Most of the usual symptoms attended, which denote

denote danger in this complaint, when it arises from other causes, but the equal, moderate state of the pulse, and the appearance of some degree of the globus hystericus, seemed to determine the nature of the complaint; a conversion, accordingly, soon took place to the ordinary hysteric paroxysm, and no bad consequence followed the hæmorrhage from the lungs.

When the hysteric disposition is set in motion, it is not uncommon to find many of the different viscera attacked by it in turns, and the diseases peculiar to each counterfeited with much exactness. I have seen symptoms of paralysis, jaundice, palpitation, and nephritis, succeed each other rapidly in the same patient, while some of the characteristic marks of hysteria have been discernible, and where the unity of the disease was proved, by the disappearance of all menacing affections, on the approach of regular fits. In one case, the bowels were attacked, and the symptoms of enteritis were so precisely imitated, as to give much alarm for the patient's safety.

safety. I suspected the real nature of t disease, from observing that the pulse w soft and full, that the evacuations were nat ral, and that her spirits were agitated, eve to involuntary emotions, by slight cause This case terminated successfully, on th accession of clear hysteric symptoms.

In all similar instances, the supervenin hysterical paroxysm puts a favourable te mination to the irregular appearances.

Several years ago, I attended an elder lady, for a complaint which seemed vibrate between apoplexy and palsy; afi lying for several weeks in a state whi afforded little hope of amendment, she w affected with involuntary sobbing and wee ing; the complaints in her head and lim were converted into hysterical convulsio and she recovered completely.

It is very common to meet with syncop or palpitations of the heart and great vesse accompanied with a soporific depression, extren

extreme dejection of strength and spirits, and converted, after deep sighing or discharge of tears, into the hysterical paroxysm. In these cases, the pulse is sometimes full and regular, during the most alarming appearance of sinking; and sometimes variable to such a degree, as to exclude all conjecture, excepting that of an hysteric origin.

To this head also belong the facts of vicarious hæmorrhage: these have been so well explained by different authors, that I shall only mention one or two remarkable occurrences of this kind, which I have met with. A shoemaker, about forty years of age, was suddenly seized with a continued bleeding from the urethra, without effort, or any desire to pass urine. When I saw him, an hour or two after the seizure, the blood flowed slowly, but without intermission. Upon pressing the lips of the urethra together for a few minutes, he became uneasy, and when the blood was suffered to pass again, a small coagulum came off. He said, that clots of blood were discharged some-

times, even when he had not attempted to restrain the hæmorrhage. The only cause to which this singular phænomenon could be referred, was that he had been accustomed, during several years, to be let blood once in six months, and that he had omitted this evacuation, for three years preceding the hæmorrhage I have described. After continuing upwards of twelve hours, during which the blood soaked through the bed-clothes, and overspread great part of the floor, the hæmorrhage ceased, and the patient recovered.

A young girl, subject to amenorrhæa, was affected, during the absence of the periodical discharge, with ulceration of the navel.

I have known rheumatic pains and leucophlegmatic swellings produced at the same time, by the application of cold; and in some cases of general dropsy, succeeding exposure to cold, there has been much pain and stiffness of the limbs, at the commencement of the disease. I have even seen anasarca

anasarca and typhus produced by the same degree of cold, at the same time.

Conversions of the different genera of fever into each other are so common, and so well described by practical writers, that I shall content myself with indicating, that in many cases they belong to this head. Conversions of intermittent to continued fevers, and of synochus to typhus, are those which may be properly comprehended here.

II. The symptoms of an idiopathic disease may, by their violence, assume the appearance, and require the attention due to a new complaint; or affections of particular viscera, which, in their incipient state, are only regarded as symptoms of general indisposition, may, as they gain ground, extinguish the original disease, or be protracted beyond it.

This head comprehends such a variety of cases, that to treat it fully, would be to give the history of all symptomatic diseases. I

shall therefore confine myself, to cases which have come more immediately under my own observation.

I have known the catarrhal affection, which so often accompanies synochus, converted to a harrassing cough, of the most alarming nature, attended with a very great expectoration. When symptoms of pneumonic inflammation supervene to typhus, there is always great reason to apprehend a consumption. In many instances of the phthisis mucosa, which I have seen succeed to typhus, the lungs seemed to have acquired the habit of secreting an unusual quantity of mucus, from encreased irritability; for I have found, that by removing the patients to a drier situation, and purer air, the quantity expectorated has been quickly reduced, from a quart or more, to a few ounces in the day.*

Dr.

* I have also found *digitalis* serviceable, in similar circumstances, whether by diminishing general irritability, or by lessening the determination to the lungs, in consequence of its diuretic power, I cannot decide. But I have repeatedly stopped the progress of incipient consumptions, by administering

Dr. Percival informs me, that he has seen an effusion into the cavities of the brain, produced by the violent succussions of coughing, in a confirmed pulmonary consumption, which effusion terminated fatally, with a previous suppression, more than a week before death, of all the pulmonic symptoms.

I have seen the hæmorrhagic effort, which is not an unfrequent symptom of typhus, when directed to the bowels, extinguish the fever, and become an alarming disease, by its duration, and by the quantity of pure blood passed with every stool.

The dyspnœa which is so often converted into general dropsy, frequently puts on

administering this remedy, when the patient was too much weakened by preceding disease, to bear the usual methods of lessening the impetus of the circulating system.' The florid consumption seldom appears among the natives of Manchester.

When this note was written, I had not formed a decisive opinion respecting the sedative power of digitalis, in phthisical cases. Much subsequent experience has enabled me to speak with confidence on this subject, as the reader will find, in the Essay on Digitalis, as now republished.

every appearance of asthma, before the swe ings commence. In one case of this kin the difficulty of breathing, and pain in t breast were so urgent, that I found repeat bleeding necessary to relieve the patient In this case, respiration was stridulous, a the voice was scarcely articulate befo bleeding.

In some cases of this nature, where t complaints in the chest were evidently occ sioned by serous effusion into the cellul membrane, and pericardium, I have afford patients great relief, by a combination diuretics and purgatives, with mucilage gum arabic. It may be proper to menti here, that during the prevalence of the l severe influenza, in 1803, where the mu cular pains and dyspnœa were the mo distressing symptoms, I found nothing lieve the patients so speedily as a muc laginous mixture, with a sufficient quanti of syrup of buckthorn, and the addition a farrago of liquid diuretics.

* See Hist. 49, of the Remedies of Dropsy.

Th

The dyspnœa and dry cough, on the contrary, which are converted into hydrothorax, are commonly accompanied with much extenuation and general debility, and are chiefly to be traced to their real cause, by the torpor of the left arm, or by shooting pains, extending to the fingers of either, or both arms.

It may not be irregular to mention in this place, that the pain in the lower part of the abdomen, with which I have generally seen dilatations of the heart accompanied, is sometimes so urgent, that the patient hardly makes any other complaint at the commencement of the disease. Lieutaud has mentioned severe pain in the region of the stomach, as a symptom, in two cases of dropsy of the pericardium, with dilated heart. In one, at present under my care, the pain was originally in the hypogastric region, but has now fixed in the region of the stomach.

In a case of acute rheumatism, I have seen the swellings of the fore arm suppurate

in different places, so as to produce a succession of abscesses, which were all opened with the knife, and healed readily. In opening one abscess, the nerves, supplying two fingers, were divided; the fingers were paralytic for some weeks after the incision was healed, but their sensation and motion were gradually restored, and the patient entirely recovered the use of them.

It is one of the most perplexing occurrences in medicine, when the supervening disease is produced by a symptom of some latent complaint; when, for example, phthisical symptoms arise in a scrophulous or gouty patient, who exhibits, at first, no other appearance of those two diseases. I remember an instance, in which all the characters of confirmed phthisis pulmonalis were present that terminated in recovery, upon the patient's coughing up some solid particles, resembling chalk-stones. Two other instances of this complaint have occurred to me last year. The mass spit up, as described to me, was of a considerable size. I procured a small

a small specimen of the expectorated substance, in one case, which was analysed by my friend Dr. W. Henry, and found to be exactly similar to the substance of the bones. This analysis sets aside the opinion formerly entertained, that this event was produced by an arthritic disposition, and shews that this uncommon disease arises from a misplaced deposition of osseous matter.

Several years ago, I met with an uncommon appearance in opening a patient, who died from the severity of dyspnœa. The lungs were in a general state of ossification, and when cut into, crackled like strong parchment.

This curious fact proves that the branches of the bronchia may take on a disposition to ossify, like the arteries. Lieutaud has collected several cases of calculi, and partial ossification in the lungs. (Hist. Anat. Med.)

Some other cases, exactly similar, have been mentioned to me in conversation, by different

different practitioners. Several instances which are commonly named misplaced gout are in reality conversions, and of a kind very apt to mislead the judgment. For the following very remarkable case, I am indebted to Dr. Percival.

"A gentleman of rank in this county, was "supposed to be in an advanced state, of what "is called a galloping consumption, having "an incessant cough, an expectoration ap- "parently purulent, continued heats, and "night sweats. Yet his cure was accom- "plished by giving wine-whey copiously "and by administering doses of hartshorn "and spermaceti. A gentle fit of the gout "was produced, by this cordial regimen. "The fever, cough, and spitting, progres- "sively abated, and the health of the patient "was soon perfectly re-established."

I have seen an effort of this kind sponta- neously made, at the close of a phthisical complaint, in a very exhausted habit; but though one great toe inflamed considerably th

the patient was too completely reduced to derive much benefit from it.

There is a strong resemblance between hysteria and gout, in the power of counterfeiting different diseases, but with this material distinction, that the hysterical representations are commonly void of danger, while those produced by gout are often more dangerous, than the simple disorders which they imitate. The hysterical hæmoptöe, for example, is seldom productive of bad consequences, but the arthritic apoplexy, pneumonia, and cardialgia, are much more alarming, and run their course quicker, than similar complaints originating from other causes. But these diseases agree in this respect, that the accession of the regular paroxysm puts a favourable period, to the irregular symptoms of each.

I met with a singular case of conversion, in the course of the last autumn. A married man complained of cough, dyspnœa, and severe fixed pain in the right side. It was doubtful

doubtful for some time, whether the disease would terminate in phthisis or in a hepatic affection. But the pain suddenly quitted the side, and fixed in the lower part of the abdomen, shooting along the penis, and producing a permanent priapism. The pain was relieved by fomentations and opiates, but the priapism continued without intermission, and when I saw him, had lasted for a fortnight. The pulse was about seventy-five; the functions in general were not disturbed. The complaint lasted, without relief, till his death. Every symptom of irritation in the thorax ceased, on the sudden occurrence of the priapism.

Irregular intermittents have occasioned palpitations of the heart, at their first accession, so violent, as to give suspicion of an organic læsion in that viscus. One mark, by which this case may be distinguished is, that before the palpitation becomes troublesome, or the stroke of the heart so loud as to be heard by another person, the patient always feels a strong sensation of closing in the region

region of the heart. A farther distinction is, that this sort of palpitation always attacks in paroxysms, though the patient is never free from irregularity in the motions of the heart; and the accession of the paroxysm generally happens in the evening, or early part of the night. In cases of this kind, I have known the convulsion of the heart attended with palpitations in the subclavian and carotid arteries, and sometimes with distressing palpitations of the iliac and femoral arteries, tingling pains shooting to the points of the fingers, and occasional swelling of the face. But the intermittent type still appearing, and the apex of the heart striking in the usual place, I have removed the complaint entirely, by bark, sea-bathing, and exercise on horseback. Mr. Pomme, in his curious treatise *des Affections Vaporeuses*, says, the hysteric epilepsy may be known, by its occurring at the menstrual periods. I have found it a permanent disease in several instances, and its nature was only to be detected, by the patient's retaining some degree of recollection during the fit, or by the concomitancy of globus hystericus.

Gout

Gout is sometimes converted into rheumatism, when the arthritic tendency to the extremities takes place in very irritable habits. I have known the large joints affected with tumor and inflammation, when, from the sympathy of the stomach with the pained parts, and from the symptoms preceding the seizure of the joints, there could be no doubt of the gouty nature of the disease.

Dyspeptic symptoms are often produced, in the incipient state of pulmonary consumption, and subsist for a considerable time, before any affection of the lungs is indicated, insomuch that a conversion appears to happen, of dyspepsia to phthisis. I believe the affection of the stomach, in such cases, is sympathetic, and affords one of the most intricate examples of masked disease. The origin of this fallacious dyspepsia may be suspected, when there appears more languor than real debility, connected with indigestion, and frequent vomiting of small quantities of pure bile; when the patient is often liable

liable to torpid oppression, chiefly when the stomach is empty, and when, upon the return of his vivacity, his faculties appear rapidly and considerably improved. There is also great impatience of scenes to which he has been accustomed, and a kind of appetite for travelling. In the mean time, the body wastes, and a short cough, which was almost unheeded at first, becomes more and more troublesome. The expectoration, which appears to consist of nothing but mucus, and from its facility, resembles the spitting familiar to hypochondriacs, encreases gradually in quantity. In this state, I have found the patient liable to violent circumscribed pain in the bowels, a little higher, but more forward than the spine of the ileon.

Another symptom of dyspepsia, frequently deceives even experienced practitioners; this is, a pain in the right side, in the region of the liver, commonly fixed, but sometimes shooting back towards the spine. With this, there is often a slight, but permanent yellow suffusion of the eyes and countenance,

great anxiety, frequent distension of the abdomen, and before the returns or exacerbations of pain, the urine is of a bright green colour. The tongue and lips grow dry, and are divided by fissures; the former is covered by a rough bilious crust, and the legs swell slightly in the evening. The pain in the side is sometimes very severe, and is then attended with pain on the top of the right shoulder. These symptoms altogether, give such strong suspicion of an hepatic affection, that it is not to be wondered, if we find cases of this kind too readily treated as such. From careful observation, however, particularly in my own case, when I suffered this complaint several years ago, I have no doubt, that all these symptoms may be produced by acidity in the stomach, and a spasmodic affection of the duodenum, without any organic læsion of the liver. The distinction is, that the pain may be felt to change its place a little, on the expulsion of wind. The pulse likewise is soft, though very irregular. The secretion of mucus from the schneiderian membrane is interrupted, and sometimes

nearly

nearly ceases, though the patient feels a frequent inclination to discharge it. He is generally, but not obstinately, costive, and subject to torpor, and nervous oppression. A slight inflammation of the fauces also attends this disorder, returning once in eight or ten days.

The method which I have found most successful in this disorder, is to give repeated small doses of the tinctura alöetica, so as to keep the body rather loose, to use daily exercise on horseback, and to reside in the country, or at least, to avoid sleeping in a town.

Dr. Hoffman has treated this subject with great accuracy, in his little tract, *De Duodeno, multorum malorum causa.*

I have found this pain connected, and apparently convertible with nephritic symptoms; in this case, which was obscure, it continued for several years, without threatening the patient's life, yet there was no

bilious evacuation, either by urine or stool, and no discharge of gall-stones. I believe that in such cases, a laxative diet, consisting of vegetable food, and of butter-milk largely used, may prove more efficacious than any course of medicine.

The affection of the head, in mixed cases of gout and hysteria, sometimes rises to a degree of paralysis; speech is interrupted, and the power of voluntary motion on one side greatly diminished. But the origin of this kind of palsy is, in general, to be traced, by the presence of globus hystericus, or by involuntary sobbing and weeping having preceded it, at no great distance. In many cases, the gouty irritation, in painful, irregular fits, is converted to hysterical affections, but I have not observed that the gouty paroxysm was shortened, or the pains much relieved, by the hysterical accession.

The prognostics, in conversions of this second class, must evidently vary, according to

the seat and degree of the supervening ase, and its favourable or unfavourable on upon the original disorder.

II. The original disease, if acute, when as run its usual course, may leave the it in a state favourable to the production another disease; or if the original be a onic disorder, such a state of the habit take place during its continuance, and accessary disease may be simply super- ed, or it may vary the form, or affect duration of the former.

ontinued fevers are converted into dif- nt diseases, the production of which its one general explanation. During the eased action of the circulating system, ıy part of the body be originally weak, ave been rendered infirm and irritable preceding disease, congestion and its equences may be expected there. It is efore easy to conceive, why one patient ld suffer a paralytic affection, another

phthisis, or a third nephritis, in consequence of tedious cases of typhus. The glandular suppurations, consequent on fevers, seem to depend on the same principle, for although they are represented as critical, by the older medical writers, I have seen a striking proof of the contrary. A middle-aged man had been ill of typhus nearly three weeks, when a parotideal abscess began to form on one side of the face. According to the common opinion, his recovery was to be expected; yet though the abscess burst, and discharged freely, the patient died. The remedies directed against the general symptoms of fever, ought not, therefore, to be suspended on the faith of such appearances, notwithstanding the confidence which authors would teach us to repose in them.

I have seen paralysis supervene to typhus, and prove mortal before the fever had finished its course,* when it appeared after death, that extensive suppuration had taken

* Medical Hist. and Reflect. p. 133.

place

place in the brain. But, in general, the paralytic symptoms do not appear till the fever has ceased; we have then nothing to apprehend for the patient's life, but we may expect an obstinate disease. I have not often found insanity supervene to typhus, though some alienation of mind is not very uncommon, after long delirium. When maniacal symptoms take place under such circumstances, there is reason to fear that recovery will prove difficult and tedious. I have been startled by Sydenham's direction of copious bleeding in such cases, but I once met with a proof, that repeated bleeding may become necessary, in congestions of the brain, immediately after the expiration of a typhus. J. Coverley, a young man, was attacked by a fever, which had every character of an incipient typhus; there were, particularly, great tremors, violent pain in the head, weak pulse, and tendency to delirium. All these symptoms were removed, in a short time, by the use of bark and wine. He then had a relapse, and again recovered. He continued feeble

and emaciated, and very soon after the retreat of the fever, was seized with excruciating, constant head-ach, and inflammation of the left eye. As the fever had reduced him so much, I hoped to subdue these symptoms by cathartics, opiates, topical bleeding, and blisters. After evacuating his bowels, which were so torpid, that he required large doses of calomel, I gave him Dover's powder in full doses. No relief being obtained by these methods, and finding his pulse oppressed, I directed him to lose ten ounces of blood. Great relief immediately followed, and his pulse became softer and fuller.

The exanthemata are frequently converted into diseases, which become both chronic and dangerous. The small-pox often produce severe coughs, diarrhœa, and ophthalmia. In some rare instances, tumors of the joints supervene, which suppurate, and destroy the patient.* The pneumonic

* Hoffman de Variol. There is a case of this sort very well described in the Miscellanea Curiosa.

inflammation,

inflammation, attending the measles, is too often converted into phthisis pulmonalis. Glandular swellings, and general dropsy, frequently succeed the scarlatina anginosa.

In particular seasons, conversions to dropsy succeed most cases of typhus. It does not appear to me, that this conversion is owing to any remarkable degree of debility: possibly it may proceed from congestion in the system of the vena portarum. It happens most frequently among children. In one case of this kind, epilepsy supervened to the dropsy, and destroyed the patient. In another, the patient recovered by the application of blisters, and the internal use of stimulants, after having undergone several epileptic fits, and appearing comatose during their intervals.

There is a curious case in Dr. Percival's Essays, Medical and Experimental,* of a woman, in whom a conversion of fever took

* Vol. 1. p. 148.

place, first into palsy, afterwards into epilepsy, and then into amaurosis. In this instance, the patient recovered; perhaps because some hysteric commotion had exasperated the alarming symptoms. In men epileptic fits, occurring when a fever has subsisted for some days, have proved fatal as far as I have observed. Indeed when is considered, how often suppuration of the brain has been discovered, in the small number of dissections of persons dead of fever, such conversions must always excite the greatest apprehensions for the fate of the patient.

Such is the tendency to congestion, in typhus, that patients often discharge considerable quantities of blood, by the mouth, nose, bladder, or anus, without much injury. I have known a person, in the second week of a confirmed typhus, when there was great prostration of strength, delirium, and a very feeble pulse, discharge near a pint of pure blood by stool, in the course of one night, with evident relief. The common theory, which

which supposes a dissolved state of the blood, in what are called *putrid* disorders, could not have place in this instance, for none of the usual appearances of putrescency were present. These facts seem to shew, that when local inflammation attends typhus, *topical* bleeding, at least, may be very freely used.

Fevers often terminate in hysterical disorders, especially in women; men too, are sometimes hysterically inclined, upon recovering from typhus, for they experience a capricious disposition to laugh or cry, and a degree of the globus hystericus. In women, the affection is characterized by sickness and porraceous vomiting, or by convulsions.*

Nephritis is also a common conversion of continued fever: it seldom supervenes with considerable violence, excepting in persons who have formerly undergone it; but when it has been familiar to the patient, I have commonly seen a very large quantity of

* Medical Hist. and Reflect. p. 119.

gravel

gravel passed, with extraordinary pain, in the state of conversion. The accession of nephritis always extinguishes the fever.

In young men, a swelling and inflammation of one testicle sometimes takes place, and becomes the principal object of attention, towards the close of continued fevers, without affecting the progress of the original disease. I believe suppuration seldom happens, in this conversion, but the affected testicle is sometimes wasted. During one season, I have observed a disposition in most fevers to terminate in inflammation of the eye-lids, nose, and lips, proceeding from one part to another progressively, like erysipelas, though truly of the active kind of inflammation. The eye-lids, and point of the nose suppurated, in some cases.

In 1790, a remarkable conversion happened, in many instances: typhus, of the most malignant kind, terminated in a gangrenous affection of the pudenda, in very young

young girls.* This conversion proved fatal, in a great majority of cases, notwithstanding the liberal exhibition of wine, bark, and opium.

I have seen typhus converted to an obstinate head-ach, which was cured by blistering behind the ears.

A. B, a middle-aged woman, was sent into our hospital as a lunatic. I found her in a state of insensibility, with a thready, low pulse, her cheeks flushed with a circumscribed red, and her tongue foul. Cordials were administered, but she could not be rouzed by any method, and she died, a few days after her admission.

Upon opening the head, the vessels on the surface of the brain appeared very turgid; the lateral ventricles were full of water. In different parts of the medullary substance of both hemispheres, tumors were found,

* Medical Hist. and Reflect. p. 133.

of

of a middling consistence, some of the size of large peas, others about the bigness of a nut; when divided, marks of suppuration were found in their internal substance. One of these tumors nearly filled up the anterior part of the third ventricle; another, the largest of all, was enchased in the substance of the right segment of the pons varolii, which it occupied almost completely.

From the most accurate inquiry, I could not discover that this woman had shewed any remarkable alienation of mind, till within a few days before I saw her. Her symptoms were those of a patient dying of typhus, but there was nothing sufficient to give suspicion of the real cause of death. She had complained of a head-ach for several months, without interrupting her duty as a servant.

Chronic diarrhæa often precedes symptoms of ulceration in the bladder. This may perhaps be reckoned a case of sympathy, but the appearance of conversion is as striking,

as

as in any other instance. A discharge of flatus from the urethra, however, attends this kind of diarrhæa, and should give intimation of the latent disease.

In like manner, chronic diarrhæa and dropsy are familiarly converted to scirrhus of the liver, suppuration of the kidneys, and other organic læsions of the abdominal viscera, which are largely detailed in practical books.

Jaundice is said, by Baglivi, to be converted to tympanites:* I have seen tympanites converted to diarrhæa and ischuria. C. W. a man about fifty years of age, had been affected with a soft, inelastic swelling of the abdomen, a year and a half before he applied to me. When I saw him, it was evidently a confirmed case of tympanites. He was at the same time asthmatic. When he swallowed a mouthful of any spirituous liquor, the swelling of the abdomen began to subside, and in the course of five or ten

* Prax. Medic. p. 375.

minutes

minutes entirely disappeared, without any sensible discharge of flatus: in three or four hours, it rose again to its former height. A vermicular motion of the intestines could be plainly felt, by applying the hand to the abdomen, while the tumor subsided. The distension was relieved by a course of steel and asa-fœtida, with occasional opiates. About a year after he came under my care he was frequently troubled with a severe diarrhæa, which was soon converted into a painful discharge of bloody urine, and sometimes even a total suppression of that evacuation. From these complaints he was relieved, by the free use of camphor and opium in conjunction, but they returned frequently during the ensuing half-year, and at last confined him to his bed. The ultimate conversion now appeared: his right leg and thigh swelled, and inflamed with great pain, and gangrene and death soon followed.

At different periods of his complaints, the size of the abdomen had varied greatly. It was

was sometimes little more than natural, but no connection could be traced between this circumstance, and the conversions of his disorder. The singular phænomenon of the sudden decrease of the swelling, could be produced, almost to the last.

On opening the body, I was surprized to see no omentum, for the subject was very fat; on diligent search, it was found that the omentum was pushed up into a sac formed by the diaphragm, and actually lay within the thorax, on the right side; as this sac, which was large enough to contain the hand, had a very small neck, the omentum was not brought down again without force. The caput cæcum, and transverse arch of the colon were in a state of very great distention; the other parts of the intestinal canal appeared sound. The kidneys were not much enlarged, but entirely diseased: their external surface was covered with watery vesicles, under which we found deep, circular ulcers, which could have contained a large pea. Internally, the kidneys were inflamed and ulcerated,

ulcerated, in their whole substance. The liver was sound, but the gall-bladder was full of gall-stones, which, Baglivi remarks, he always found very numerous, in persons dead of tympanites.

This dissection throws no light on the singular fact, of the occasional removal of the distention. The ischuria was perfectly accounted for; probably the diarrhæa was a sympathetic affection, produced by the state of the kidneys. The hernia of the diaphragm, here detected, has not, I believe, been described before.

Dyspeptic complaints, of long standing, are often converted to general dropsy, especially when they are accompanied by chronic pain of the stomach. Ascites is frequently converted to chronic inflammation of the bowels and diarrhæa, which generally prove fatal.*

* Med. Hist. and Reflect. p. 97. and seq.

Maniacal complaints, after continuing for several years, often terminate fatally with epileptic fits, as Dr. Mead has observed. In opening several patients, who have died in this manner, I have found the lateral ventricles of the brain turgid with water, and such a general fulness of the blood-vessels of the brain, that they appeared as if artificially injected. It was difficult to determine, whether there was any unusual hardness of the brain in those cases, but all the parts appeared uncommonly distinct and sharp.

Dr. Mead has noticed two remarkable conversions one of which extinguished, and the other retarded, a dangerous complaint. A young lady, in the last stage of a dropsy, was seized with a fit of insanity, during which she bore the action of powerful hydragogues, which removed at once her mental and bodily disease. Another lady, affected with all the symptoms of confirmed consumption, was suddenly impressed with religious melancholy, which removed every phthisical

symptom for three months, but the original disease then returned, and proved fatal.*

I have seen a patient, who had long been in a brutal state of insanity, seized with a pleurisy, and have found him more clear and consistent in his answers than usual. But I have known another maniacal patient, not so completely deranged, undergo a very painful operation, without any immediate effect upon the mind.

In one maniacal case, which succeeded an ill-treated typhus, the patient received no relief from medicines, till a broad, yellow, scurfy eruption appeared about the crown of his head, which was bald. Successive crops of these eruptions delivered him completely from all remains of his mental disorder.

Typhus, and the cynanche maligna are sometimes reciprocally converted, when both are epidemical. The cynanche has been

* Mead de Insania.

converted

verted to general dropsy, even before the
erations in the fauces disappeared.

V. Conversions may arise, when a dis-
, regular in its usual course, or long
iliar to the habit, is violently terminated
improper methods, or suddenly extin-
hed by accidental circumstances.

have noticed elsewhere,* a remarkable
, in which epileptic fits were produced by
retrocession of the itch, in consequence
me external application. In that case,
epilepsy resisted all the usual methods,
was only cured by reproducing the itch.

nstances of the production of melancholy
madness, by the suppression of eruptions,
ne healing of old ulcers, and habitual
ns, are common in practical writers. The
ases originating from the suppression of
menstrual and hæmorrhoidal discharges,
also well explained in different books.

* Med. Hist. and Reflect. p. 183, 184.

Dr. Hoffman's treatise *de Morborum Transmutatione*, relates almost entirely to this class of disorders.

I am inclined to consider the puerperal mania, as a case of conversion. During gestation, and after delivery, when the milk begins to flow, the balance of the circulation is so greatly disturbed, as to be liable to much disorder from the application of any exciting cause. If, therefore, cold affecting the head, violent noises, want of sleep, or uneasy thoughts, distress a puerperal patient, before the determination of blood to the breasts is regularly made, the impetus may be readily converted to the head, and produce either hysteria, or insanity, according to its force, and the nature of the occasional cause.

In the following case, which fell lately under my observation, the most alarming conversions happened, in consequence of the moveable inequality of circulation. J. G. a young man, of a full habit, after a fall on his

ight side, was affected with a cough, and ısional spitting of blood. When he came er my care, he had every appearance of ıisis, except emaciation. He sometimes ed small quantities of blood, both by l and urine. After three or four months, phthisical symptoms abated consider-', and he began to complain of a severe, d head-ach; in a short time, he became ılytic on the left side. From these symp-s he was gradually freed, by repeated dings and blisters. A violent pain then :ked him under the left breast, without :wing his cough, which was followed by rregular train of complaints, that did not ıt to any particular disease. At length, ɔegan to swell, round the lower part of trunk of the body, and there was reason elieve, that a large quantity of matter was ıing in the cellular membrane. Not long r, a disease in the vertebræ of the back ın to shew itself. His lower limbs were ' become entirely paralytic. After lan-ıhing in this state for a considerable time, was seized with a purging of pure pus,

which continued for two days, and completely reduced the swelling, but left him so weak, that his death was hourly expected. —I had not an opportunity of knowing the event of this case.

The following case much resembles the preceding.

A young man, sixteen years of age, after a fall on his side, had symptoms of general rheumatism, which were removed by the use of Dover's powder, and other sudorifics. Some months afterwards, he was seized with violent pain of the head, which recurred every third day, and with pain and swellings in the left elbow, and in both wrists: the swellings of the wrists appeared to be in the bursæ mucosæ, His pulse was quick and frequent. He was put on a course of calomel, digitalis and opium. Phthisical symptoms then appeared, which were relieved by the myrrh-mixture, steel, and opium. His cheeks now swelled, became hard, and at length an opening took place, in

in a pimple on the right cheek, and a considerable quantity of pus was discharged, with great relief to the head and lungs. This discharge recurred frequently, and always with great temporary abatement of the head-ach and cough. It should be mentioned, that before this evacuation, the head-ach had been always so severe as to confine him to bed, while it lasted.

By the advice of Dr. Percival and myself, the patient was sent to Clifton. After his arrival there, two of the dentes molares of the under-jaw, on the left side, became loose, and upon their extraction a large quantity of pus was discharged from their sockets, and the head-ach, as we were informed, entirely left him. After a stay of some weeks at Clifton, he returned home, completely hectical, but the head-ach was now trifling, and the swellings of the wrists were gone. He died in convulsions, soon after his return.

In this case, the variation of the symptoms evidently depended on the translation of

pus, from one of the viscera to another, though the antra maxillaria contained the principal deposit.

I once witnessed a conversion of apoplexy to insanity, which strongly reminded me of a line in Horace:

Ut lethargïica hic, cum fit pugil, et medicum urget.

An elderly man had an apoplectic fit, on the third day of which I was called to him. He lay quite insensible, with much stertor, and a variable pulse. I directed cold water to be applied to the head, with as little interruption as possible. Some signs of recollection appeared; but nothing decisive, till the next evening, when he suddenly rose from his bed, drove his servant and one of his relations out of the room, with much vociferation, and locked himself in. He was secured, with some trouble, and continued to talk, and exert himself violently, but his mind was completely deranged. He began to recover, upon ulceration of his gums taking place, in consequence of a course

course of calomel, and by supporting a gentle ptyalism his mind was almost completely restored.

Tedious dyspeptic cases are often converted to cutaneous eruptions, in distinct pimples, of a fiery red colour; such eruptions extinguish the complaint in the stomach.

A very obscure, and unpleasant case occurred to me, about a year and a half ago, which proved ultimately useful, by detecting a disease, more frequent perhaps than has been supposed.

A young man, of irregular and intemperate habits, particularly addicted to the use of spirituous liquors, was seized with violent pain in the region of the liver, and various symptoms which indicated a bilious affection. The pain abated by the use of calomel and opium, and he appeared, in a few days, to be in a state of recovery. Contrary to my express injunctions, he went out, in a winter-day, and afterwards received some

some of his friends at home. He underwent a severe return of pain, which affected his breathing, and obliged him to press on the region of the liver with his right hand. I found him in this state about eight o'clock in the evening, and directed an anodyne draught, with thirty drops of laudanum, to be given immediately, and to be repeated once or twice, according to circumstances in the course of the night. He took the first draught soon after, and finding no relief, took the second about eleven o'clock. He felt himself much relieved after swallowing it, but soon had a return of pain, and expired suddenly. Under such circumstances, it may be supposed that I was very anxious to obtain an inspection of the body; and in compliance with my solicitations, it was carefully examined by Mr. Gibson. The liver was found perfectly sound, and the stomach appeared healthy externally. But on examining its inner surface, we found an erysipelatous eruption, near the pylorus, in different stages.

In

In one place, the spots had nearly disappeared, in another, gangrene had taken place; and it was evident that the successive appearance of these crops of pustules had occasioned the returns of pain, and that the rapid mortification of the most recent pustules had produced the unexpected fatal event.

Lieutaud mentions several appearances of a similar nature. Histor. Anatomico-Medic. tom. 1. p. 28.

It appears from this case, that the cuticle lining the stomach, is liable to similar diseases with that which covers the surface of the body. In chronic disorders of this organ, the existence of eruptions will therefore become an important object of consideration. The seat of pain, in this case, gave rise to a fallacious opinion respecting the seat of the disease, for it lay directly under the concavity of the right lobe of the liver. I do not believe that any degree of attention could have

have detected the truth, in the first instance, for there was no vomiting, nor was there any morbid sensibility to the temperature of liquids received into the stomach.

If dyspepsia be ever occasioned by eruptions on the cuticle of the stomach, the remark in the foregoing paragraph will admit a very ready explanation.

The hernia humoralis, occasioned by premature suppression of gonorrhæa, may properly reckoned a case of conversion. have been informed, that this affection of th testicle has been known to baffle every mean of relief, and that the practitioner found i necessary to inoculate the patient for a fresh gonorrhæa. The return of the running, and ardor urinæ, it was said, entirely removed the disease of the testicle.

Three remarkable cases of conversion, in consequence of suppressing mercurial salivations, are mentioned by Dr. Silvester, in the

dical Observations and Inquiries.* In , violent pains in the joints, in another, xed head-ach, in a third, a vomiting of ry thing swallowed, during three months, k place. I have known hermoptöe and ısumption follow exposure to cold, when : body was charged with mercury. The ɔcts of mercury, in large doses, have been le known, comparatively, since the dan- rous practice prevailed, of trusting the re of lues to slight courses of that medicine. have seen tremors, so universal, that they emed to affect every individual muscular ɔre in the body, supervene on its large, ıd long-continued use, when siphylis had ɔen rooted in the habit, by a too sparing ·evious exhibition. In another case, I have nown mercury so imprudently given, and ith so little attention to the progress of the ısease, that when the mercurial ulceration ɔok place in the tonsils, it was supposed that ıe patient was relapsing, and a fresh load of ıercury was thrown in, with the effect of

* Vol. 3. p. 241.

producing

producing racking pains in the bowels, fever, and bloody purging.

The mercurial hectic, which may justly be reckoned a case of conversion, is not only alarming in itself, by ruining the powers of digestion, but in its tendency to produce melancholy, and total derangement of the faculties.

De Castro mentions a conversion from dropsy to epilepsy, of which I have seen no instance, but which is confirmed by a case of Lieutaud's.* The ventricles of the brain are often loaded with water in hydropic patients, at every age. In fatal cases of ischuria, when the patient dies comatose, it is well known that the ventricles of the brain are filled with a fluid, which has the sensible qualities of urine. This is a real conversion to apoplexy.

I shall remark, by the way, that in diabetic patients, the pathological rule respecting the

* De Hydrop. Epigen.

conversions

conversions of determination between the skin and the kidneys, does not always hold good. In two cases of diabetes, the patients have complained of profuse sweats, at a time when the discharge of urine was most considerable.

In the cases which I have seen, dyspeptic symptoms have always preceded this disorder, and it has been attended with great emaciation, and every appearance of general debility. Dr. Sydenham seems to have regarded it, as always dependant on such a state.*

The diseases produced by the improper suppression of gout, whether from the imprudent use of tonics, such as the *Portland Powder*, or from too sudden an adoption of low diet, are too well known to require particular consideration here. While gouty symptoms are so directly produced by a certain state of the passions, it is vain to

* Epidemic Diseases from 1675 to 1680.

direct our attention to corporeal remedies only; and it happens unfortunately, that an exemption from care and solicitude, the great sources of arthritic complaints, is, in this life, unattainable. Under uneasy circumstances of mind, gout will arise in persons strictly temperate and virtuous, active, free from hereditary pre-dispostion, and in every respect qualified to claim an exemption, from this great scourge of anxious refinement, and artificial society.

Anomalous cases of conversion may be multiplied infinitely, not only by the combination of the different circumstances already mentioned, but by the modes of treatment adopted by practitioners. Slight cases of synochus are often converted to typhus, intermittents to continued fevers, and pneumonic inflammation to phthisis, by the improper practice of medical men. On this delicate subject, Dr. Hoffman has written a short essay, entitled, *Medici Morborum Causa*, which may be perused with advantage.

There

There are few diseases, in which the effects of injudicious practice are more apparent, or more distressing, than in rheumatism. I have repeatedly seen the patient's strength worn out, by pushing contrary methods to excess, when the practitioner has shed torrents of blood one day, and has endeavoured to repair the consequent sinking, by pouring in the most mischievous cordials on the next; while the pain, instead of abating, has become more agonizing. I have seen the plan of bleeding and low diet carried on, till the patient became dropsical, without obtaining any relief from pain; in other cases, I have known the pains fixed for life, by an untimely exhibition of bark. I have known extenuation of the whole body, and palsy of the extremities, supervene to a common rheumatic attack, which might have been readily overcome by proper treatment. These conversions are particularly frequent among the poor, in remote parts of the country. In such cases of great emaciation, and loss of voluntary motion, combined with constant pain, nothing an-

swers better than a course of ling-liver oil, which has long been a popular remedy in our infirmary. I am inclined to think, that this remedy operates, in a great measure, by encreasing the deposition of fat in the cellular membrane, for I have invariably observed that it is slow in relieving, that patients acquire a considerable degree of corpulence as their recovery proceeds, and that an encrease of plumpness is always evident, before the pains diminish remarkably.

The lives of many hysterical and hypochondriacal patients have been at once shortened and embittered, by the thoughtless encouragement, which some practitioners give to the use of spirituous liquours. I have seen most melancholy instances, in which habits of dram-drinking have been thus acquired, under the sanction of the medical attendant, by persons, not only temperate, but originally delicate in their moral habits. In this manner, hysterical disorders of no great moment, are converted to scirrhus of the liver and dropsy, to apoplexy, palsy, and other fatal diseases. I have

I have known a chlorotic palpitation of the heart treated as a dilatation, though the apex of the heart was found to strike in the usual place; frequent small bleedings and low diet were enjoined, and this method was pursued till anasarca supervened, and the patient's strength was completely exhausted. *Sed Manum de tabula.*

In cases of internal suppuration, the removal of pus from one cavity to another, from the knee-joint, for instance, to the cavity of the peritoneum, is popularly called a metastasis, and described in every treatise of general surgery.

In the Miscellanea Curiosa, a case is related, in which epilepsy was cured by conversion to a quartan.*

Conversions of the different species of inflammation into each other (a neglected subject of great importance) belong, perhaps, to

* Ann. 1695-6, p. 34.

this head, as there seems little regularity in the process. I have found active inflammation in the tonsils combined with the scarlatina anginosa, in several cases: when ulceration had begun on the surface of the tonsil, after the appearance of the scarlet efflorescence, the body of the tonsil has inflamed and swelled, the ulcerative process has been stopped; genuine inflammation has appeared, and suppuration has followed. The ulcers have sometimes been extinguished by this occurrence; sometimes they proceeded, when the suppuration of the other part of the gland had run its course.

Diseases produced by independent causes when they coincide in the same patient, although they are not mutually convertible, may yet influence each other in some degree, so that the accession of one may be retarded. Thus, when the contagions of the measles and small-pox have been applied about the same time, to a person predisposed, the disease first communicated has run its course, and then

the second disease has taken place, though at a later period than that in which its contagion usually takes effect. There are other contagious diseases which may subsist together, without affecting each other in any respect. It has never been observed, in armies, that the presence of the venereal disease prevented attacks of dysentery; and it is known that hydrophobia, which so powerfully agitates every fibre of the system, has not produced any alteration in a virulent gonorrhœa, with which an unhappy sufferer was at the same time affected.

A case lately occurred to me, however, in which nodes on the skin-bones, and venereal pains in the heels came on, immediately after a fit of acute rheumatism, in consequence of a pox contracted several months before.

There are some cases in which two diseases subsist together, without any apparent connection, although one of them be really produced by the other; and from a want of

facts upon this subject, the relation can only be traced by dissection after death. I shall give a case of this kind, at some length, because the symptoms were of the most delusive kind, and calculated to inspire false notions of the disorder. If it be properly considered, it will be found to convey very important cautions.

S. S. a boy, three years of age, was seized with a fever, then epidemic, on the 10th Sept. 1794. I saw him three weeks afterwards. With the common febrile symptoms, he had a considerable degree of anasarca, which affected more especially his face, and lower extremities. He had no cough, no difficulty of breathing, nor pain in his breast, and I could not find, from the most careful enquiry, that he had ever made such complaints. There was great paleness over the whole skin. He was torpid, without delirium, or the symptoms of oppression common in typhus. About the eleventh of October, he complained of pain in the lower part of the

the abdomen; on the twelfth, violent palpitations of the heart, and in the arteries on the neck, supervened, and he died on the thirteenth.

Upon opening the body, we found water effused under the dura mater, and the pia mater was distended with water. The blood-vessels of the brain appeared full, but there was no other morbid appearance in the head. In the abdomen, the liver was unusually large, but otherwise sound; the gall-bladder was much distended; the kidneys were enlarged, but not diseased; and there was rather more fluid than usual in the cavity of the peritoneum. In the thorax, there was great disease. The pleura adhered strongly to the ribs, all round, and on the right side was inseparably united to the part covering the lungs. There was an inflammatory exsudation over the whole surface of the pleura. A small quantity of fluid was effused, on the left side. The pericardium was filled with water. The heart was sound, but the left

auricle was very small, and shrivelled. The right auricle was somewhat larger than usual.

In this case, an active inflammation through the whole extent of the pleura, producing exsudation and adhesions, was not indicated by any symptom, during the continuance of the complaint. The anasarca might be originally produced, by the remote causes of the fever and pneumonic inflammation, but it was apparently encreased, at least, and supported by the obstacles to circulation, which the state of the lungs and pleura presented, particularly after the formation of the adhesions. Both parents assured me, that the anasarca appeared at the same time with the fever. This affords, therefore, a striking example of those insiduous cases, in which the principal disease does not produce its proper symptoms, but proceeds under the mask of another disorder, not usually connected with it during its active state. A succession of blisters would be a probable method of relieving such affections, and

might be used with advantage when the fever languishes, like this, (without pointing to any particular cause of protraction) even in lower degrees of inflammation. Indeed, the conjunction of so general an anasarca, with any fever which does not appear an exquisite typhus, in the first days, must give suspicion of partial plethora, or congestion, in some part of the system, and excite attention to the slightest inflammatory symptom. The palpitations of the heart, which only supervened within the last two days, were probably owing to the firm adhesion of the pleura lining the ribs, to that covering the right lobe of the lungs, which impeded both circulation and respiration, and to the increasing effusion of fluid into the pericardium.

The pain in the abdomen, which I have often remarked in dilatations, and inflammatory affections of the heart, was present here, but was not so violent, nor of such duration, as to afford suspicion of disease in the thorax.

In

In every case of fever, attended with unusual appearances, the practitioner ought to be aware, that the symptoms which force themselves on his attention, do not always form the whole, nor the most formidable part of the disease: he must, under such circumstances, keep the remotest causes and consequences in view, and rather risk something officious, such as the application of blisters when no local pain, or injury of function seems to demand them, than suffer the patient to be destroyed, without making an effort for his preservation.

As there was no vomiting, in this case, I do not think it could be properly named peripneumonia notha, conjoined with typhus. But this fact, with many others, which it is unnecessary to mention here, proves that the lungs, as well as the heart and liver, may suffer irremediably, from lingering, imperceptible, yet destructive inflammation.*

Since

* A very similar case is to be found in Lieutaud. Obs. 384. Juvenis duodetriginta annorum, *leucophlegmatia* laborans, inter remedia huic morbo dicata, repentina morte tollitur.

Thorax

Since the description of this case, I have been fortunate enough to detect the nature of this complaint, in several instances, and to produce cures, by a rapid succession of blisters, applied to the thorax and sides.

From these facts, many important conclusions may be drawn, respecting the prognostics and cure of diseases. The subject is capable of admitting very extensive research, but considering this paper as a slight sketch only, indicating what may be done by other observers, I shall content myself with some of the most obvious deductions.

1. Whenever local inflammation supervenes to an acute disease, it shortens or extinguishes the original disorder. Hence one great source of perplexity, in such cases as that of S. S. (p. 60) where the inflammation does not betray itself by its proper symptoms,

Thorax sinister pure repletus invenitur, nullis fermè manentibus pulmonis reliquiis. Non tussiebat æger, in utrumque latus decumbebat: nullam, uno verbo, fuerat morbi pectoris indicium, quod sane mirari subit.

Histor. Anat. Med. tom. 1. p. 534.

yet

yet the feverish symptoms cease, or at least are greatly mitigated by the conversion.

An important rule in practice may be formed, from this observation. In those alarming cases, where pneumatic inflammation supervenes to synochus, or typhus, the cure of the fever may be in a great measure trusted to the supervening disease, and our attention may be chiefly directed to the progress of the inflammation. By this means, contra-indications will be avoided, and the safety of the patient will be better consulted, than by the temporizing practice usually adopted on such occasions. The danger, or salubrity of this conversion, appears to depend greatly on the nature of the part attacked by inflammation. If it be a conglobate, or conglomerate gland, the fever is often,* though not constantly, extinguished without hazard; but if the brain, the pleura, or peritoneum are inflamed, whatever be-

* It will appear, from the case mentioned in p. 32, that the existence of an external inflammation should not induce practitioners to neglect the fever; indeed, no perplexity, nor contra-indication need arise from it.

comes

comes of the fever, the importance of those parts to life, renders the progress of inflammation in them highly dangerous.

It is easy to explain from hence, why in patients, who die in typhus, of suppuration in the brain, the fever often seems at a stand, for some days before death; at least the patient, to an incautious observer, appears not materially worse. The original fever is mitigated, in proportion to the advance of a fatal inflammation. In like manner, the increased energy of the brain, produced in mania, relieves, or cures dropsy, and other diseases, depending on a want of action in the system.

This deduction serves also to explain the action of blisters, which, by producing local inflammation, imitate the process, and in proportion to their action, exhibit the effect, of this kind of conversion.

Hence also, the salubrity of the gouty inflammation, when it seizes a part not necessary

sary to life. This differs from other kinds of inflammation, in its power of extinguishing chronic diseases, such as dyspepsia, or nephritis of long standing. May we conclude from this circumstance, that attempts to excite inflammation in chronic disorders, either by blisters, or rubefacients, ought to be more frequently made, and more varied, than is usual in the present practice?

It must be added, that general fever sometimes cures local inflammation; Mr. HUNTER says, he has seen a gonorrhœa extinguished, by the accession of a fever. Some facts of this sort appear to have impressed the mind of that excellent observer, and to have given him a confused idea of the existence of conversion. But his theory of the incompatibility of similar morbid actions in the living body, amounts to nothing more than a recital of facts, in abstract terms. It is too common, for modern philosophers to mistake such recitals, for the investigation of causes. When we consider, that, besides the facts respecting general fever, there are many unexpected

pected and dangerous conversions, in lass of exanthemata, from the eruptions, they have been completed, to inflamma- of the internal parts: that in erysipelas. are not yet acquainted with all the instances, under which inflammation is lated from the skin to the brain; and the translation of pus from its original to a distant part of the body, is not yet ced to any rules, from which we may to expect it; we perceive, at once, a t deficiency in medical science, and a of enquiry, equally curious and useful.

he histories of several chronic diseases, bsolutely cases of conversion: to be con- ed of this, we need only to refer to SYD- AM's descriptions of hysteria and gout. numerous tribe of disorders, occasioned lterations in the structure of the abdominal ra, exhibit similar phænomena. Scirr- obstructions of the mesenteric glands present the appearance of colic, or dys- ia, while scirrhus of the liver is masked under

under symptoms of jaundice or dropsy. When we find so many acute diseases convertible into each other, it seems not impossible, that by investigating their connections in this respect, an unity of cause may be discovered, among affections, which, at present, appear essentially different, and that new light may be thus thrown, on the most obscure doctrines of pathology.

2. The convulsion denominated hysterical, when it seizes the muscular fibre, in cases of conversion, is always salutary, and may be regarded, in many instances, as the crisis of chronic diseases. There is great similarity in the effects of *electricity*, excepting that its action is momentary; and when it is considered, that the movements which it produces, in paralytic limbs, are truly convulsive, it seems not improbable, that its advantages arise, from its exciting a transitory effort of that nature. The more permanent action of internal stimulants and tonics, may be supposed to excite the convulsive effort, in a still

still lower degree, which may be illustrated, by considering the effects of arsenic, in different doses: a few grains of that mineral, are capable of producing the most fatal convulsions; the sixteenth part of a grain, repeated at proper intervals, operates as a safe and beneficial tonic.

The accession of epilepsy, it is said, has cured an intermittent of long standing; the same effect has resulted from the cold bath, which gives a strong momentary shock to the brain. Convulsive movements appear to be most useful, by destroying morbid actions, which have been perpetuated by habit. Hence the utility of cold bathing, in lingering cases of typhus, where the usual stimulants have lost their effects. In inflammatory diseases, the accession of convulsions, or spasm, is commonly dangerous; as in the inflammation of the gums, and symptomatic fever, attending dentition; indeed, the conversion of a strong irritation, from any part of the system to the brain, is always hazardous. This is

evident from the consequences of conversions of inflammation, from the lungs to the head, in pneumonic cases, or from the skin to the head, in erysipelas, and in many instances of retroceding, or misplaced gout. Considered under this point of view, the analogy between the effect of these conversions, and that of tonic and stimulant remedies, in like circumstances, becomes very striking and instructive. It must be observed, that no good effect is derived, from the accession of a stronger, or more general convulsion, or spasm, to one weaker, or more partial; as when epilepsy succeeds to chorea, or tetanus to trismus. But to all these cases, the hysterical convulsion must be understood to form an exception; for I apprehend, we are not yet sufficiently acquainted with its influence on the progress of diseases, to set any limits to its action.

3. It is so far certain, that medicines operate by producing conversions, that we perceive very considerable diseases resulting from

from the use of certain remedies, such as mercury; and we judge of the extinction of the original complaint, in some measure, by the encrease and permanency of the remedial disease. I have mentioned a case (p. 51) in which the mercurial ulceration of the tonsils was so great, that a practitioner mistook it for the venereal ulcer; and Mr. Hunter has given several cases, where the mercurial ulceration had out-lasted every symptom of lues, and proved an intractable complaint. In like manner, Dr. Darwin has observed, in his ZOONOMIA, that some derangements of mind cannot be removed, without exciting an artificial delirium, by means of opiates.

When we give diuretics, or cathartics, in dropsy, we endeavour to excite a disease in the intestines, or kidneys; for an extreme increase of natural action, in any part, is certainly morbid. A conversion of ascites to diarrhæa, and to chronic inflammation of the intestines, is, in reality, a common occurrence, and almost always fatal. We should

learn from this fact, to avoid the use of irritating purgatives, or at least not to employ them familiarly, in cases of ascites.

To ascertain the diseases, produced by the long use of particular remedies, would be an object of considerable utility. We know, already, the mercurial hectic, the dyspepsia, arising from the too familiar employment of tonics, the apoplexy, produced by the imprudent use of cold bathing, and the phrenzy occasioned, under particular circumstances, by the use of warm mineral springs. But we possess these, only as detached facts, from which no general conclusions can be formed; and since the mischievous prejudices against bark and opium have been exploded, we have, perhaps, erred on the contrary side, by supposing the general action of medicines to be salutary in itself, and consequently, by neglecting to investigate their ultimate effects on the constitution.

4. It may be regarded as a general rule, that

that internal inflammation, supervening to chronic diseases, while it is equally dangerous with a similar conversion of acute disorders, has less tendency to extinguish the original complaint. Thus inflammation of the pericardium, is frequently discovered, in dissections of persons who die of general dropsy,* or of other chronic complaints, in which the affection of the pericardium seems to be a casual conversion, which, indeed, hastens death, but does not arise from any necessary connection with the original complaint, or with its usual conversion. Thus, pneumonic inflammation, supervening to intermittents, runs its course without extinguishing, or changing the type of the fever.†

I have already noticed the conversion of dropsy, to inflammation of the bowels; chronic inflammation of the liver seems, also, to

* Lieutaud Hist. Anat. Med. t. 11. p. 19, 72, 73, 74, 75, obs. 469, 470, 695, 696, 697, 698, 699, 700, 701. See also the whole sections, p. 66, 67.

† Bonet. Sepulch. p. 1428.

form the termination of some lingering dyspeptic complaints, but the train of symptoms, from which it may be expected, is not yet ascertained.

Even the gouty inflammation, when it seizes an internal part, loses its salutary tendency, and assumes the most dangerous form, consistent with the symptoms proper to inflammatory affections of the particular organ attacked, without pointing to any curative conversion.

5. Cutaneous eruptions often extinguish dangerous diseases. Excepting the regular exanthemata, such conversions seldom happen in acute disorders; I have known acute rheumatism accompanied, in two cases, with efflorescences on the legs, but they seemed to have no effect on the pains. Madness and melancholy, epilepsy, delirium, protracted after fever, dyspepsia, various pulmonary affections, are all observed to be mitigated, or removed, on the appearance of cutaneous disorders;

disorders; especially on the return of those, which, after becoming familiar, had been suddenly suppressed.

In electrifying patients for obstinate cases of palsy, I have often remarked, that the patient received no benefit, till red, fiery eruptions were produced, on those parts of the limb which were surrounded by the chain.

Some practitioners have imagined, that much could be done, by producing crops of pustules on the surface by stimulant applications, in diseases of the lungs and the joints. My experience of this method furnishes no proof of its efficacy.

Perhaps, as I have suggested elsewhere, a specific eruption is requisite, in such cases, more frequently than we are aware.

In general, there is no safer conversion than that to the skin; the distance of the affected part from those necessary to life; the

varieties in the state of circulation, to which it is habituated, and the easy application of external remedies which it admits, combine for the security of the patient, whenever a disease is fully translated to the skin. Sudden conversions from the skin to the internal parts, are, I believe, universally dangerous whether they interrupt the course of an acute, or a chronic disease.

Some affections of the skin, though they happen in consequence of acute diseases seem to have no effect on the original complaint; such are, petechiæ in typhus.

In the second case, published in the *Medical Histories and Reflections*, there is a curious instance of connection between an erythematous state of the skin, and convulsions, attended with racking pain in the stomach.

6. Respecting hæmorrhages, I have nothing to add to the observations of former writers; for abundant pains have been bestowed

stowed on conversions, arising from inequality of circulation. It may be proper to repeat, that the presence or absence of the hysterical effort, materially affects the prognosis, in all cases of hæmorrhage.

Old men not unfrequently die, after discharging blood from the urethra, for some days. This appears to happen from ulceration, or other disease, in the kidneys.*

7. As it appears, that many conversions are processes, instituted by nature for the cure of diseases, and that some of the most active remedies operate in a similar manner, we may not only improve the history of diseases, but the practice of medicine, by paying closer attention to the connection, and operation of disorders upon each other. With this view of the subject, the most complicated cases will admit an instructive developement, and every additional fact may find an useful place.

* Lieutaud. Hist. Med. Anatom. t. 1. p. 249 and 258.

In

In pursuing this train of observation, we may be confident, that we are really following the order of nature, and that the result will be, not an arbitrary system, but an accession of solid, and applicable knowledge. Thus a foundation may be laid, for a natural arrangement of diseases, and a just theory of the senative motions of the human system: splendid objects for the ambition of another age, to which we can only hope to contribute a few materials!

Thus a check may be given, also, to the unprofitable custom of publishing single cases, which, some rare instances excepted, are of little more public utility, than the moral tales of a monthly magazine.

The accession of epilepsy to dropsy, noticed at p. 55, was inserted on the occurrence of the case, after this essay was ready for the press. This will explain a seeming contradiction in p. 78, which I had neglected to alter.

OF INSANITY.

Vestibulum ante ipsum
Luctus et ultrices posuere cubilia curæ. Virg.

OF INSANITY.

THERE are few subjects on which information is more ardently desired, or more difficult to be communicated, than this of insanity. The philosophical consideration of the causes and symptoms of this disease, involves the most intricate operations of intellect, and the ideas of them obtained by the most patient and laborious attention, require talents far beyond the usual standard of merit, for their expression. Those who would gain a knowledge of the symptoms of madness from books, more particular than that afforded by ARETÆUS, must consult SHAKESPEAR and RICHARDSON; as the Greek physician learned the signs of love from the verses of SAPPHO. From a want of that exquisite discernment

discernment in the traces of character, which rather qualifies a man for the composition of poetry or romance, than for pathological discussion, some medical writers have limited their arrangement of mental disorders too narrowly, while others have extended the empire of insanity to so many transitory excesses of passion, as to share with DAMASIPPUS in the ridicule of supporting the old stoical paradox.

Before a comprehensive view of this subject can be obtained, it will be necessary for those who are accustomed to see insane persons, to communicate the result of their observations simply, according to the impression they receive, without referring to a system, or hoping for one. To this must be added frequent inspections of the dead, which continually present so many unexpected appearances, and render our views in prognostics at once extensive and cautious. I proceed to mention a very few detached facts, in conformity to this plan.

In

In maniacal cases, false perception, and consequently confusion of ideas, is always a leading circumstance; as far as I could ever learn from maniacs, surrounding objects appear to them to be on fire, at the beginning of their disorders; and like wild animals, they are sometimes disagreeably affected by particular colours, which excite their indignation to a violent degree. In consequence of these sensations, added to their own hurry and confusion of thought, they are by turns timid and outrageous. When a lunatic attempts to strike, it is generally by surprise, or when he expects no resistance; a determined opposition disarms him:

"Man but a rush against Othello's breast
"And he retires."—

The confusion of thought may be traced in all its degrees, in different cases, from a want of the common power of concluding, to an inability of completing a single sentence. In many maniacal cases, the disease seems to consist in incitation, and, as it were, inflammation

mation of thought, so that the mind is not allowed leisure to form any judgment concerning the ideas presented. A similar state of the faculties is experienced, on the morning succeeding a debauch in wine. In other cases, every past idea is recollected with great accuracy, and the patient repeats long trains of occurrences, or of arguments, either in soliloquy, or in reply to something said by the attendants. I have often witnessed astonishing exertions of memory, carried on in this manner, for several hours without interruption. There appears, in such cases, little more incoherence than would be found in the discourse of a rational person, if he were to utter all his ideas aloud, without reserve.

There are inferior degrees of mania, in which the patient preserves a strong command over himself, though disposed to use violence against individuals. I have seen a maniac, after committing a single outrage, master himself so completely, that no signs of his disorder could be detected during six months

s confinemont; but from the moment
ally of passion threw him off his guard,
ame furious and ungovernable.

n in the frantic state, attention and
y are not always abolished; a furious
will sometimes throw out a smart
pon those who address him, which
that he knows his own situation, and
his attendants.

obstinacy of false perception, once
ed, is incorrigible. A maniac, con-
n a house situated on a small brook,
l himself the owner of several vessels
were daily expected in port. Though
patients who were allowed more li-
step over the brook many times in the
e always rose when the moon shone, to
ether his ships had entered the river.
similar occasions, persons unaccustom-
natics, expect to do some service, by
to convince them of their error; but
empt is always unavailing; the patient

will even admit some distinction, yet recur to his favourite idea. A gentleman now under my care, believes himself to be of royal extraction; when I accost him by name, he says, that to his physician he is indeed Mr. —, but to all others he is the prince-royal of Spain, and from them he expects the ceremonies due to his birth.

When lunatics attempt to write, there is a perpetual recurrence of one or two favourite ideas, intermixed with phrases which convey scarcely any meaning, either separately, or in connection with the other parts. It would be a hard task for a man of common understanding, to put such rhapsodies into any intelligible form, yet patients will run their ideas in the very same track for many weeks together.

If the violence of any passion has been among the immediate causes of insanity, that passion is brought into action with great fury, at some period of the disease, and pride, anger,

ger, or love, becomes a distinguishing feature. Fear produces an immediate expression of the strongest kind, deprives the maniac of speech, and renders his countenance a hideous caricature.

The contrary state to false perception, is an intensity of idea, which constitutes melancholy. The maniac, as Mr. Locke has observed, reasons justly, though from false premises, being deceived in his first impressions: the melancholic, on the contrary, perceives, not wrongly, but too intensely regarding some objects, which induces him to grant them an exclusive attention, and leads him to reason improperly, even concerning his truest perceptions.

A melancholy patient, despairing of his circumstances without foundation, was persuaded with much difficulty to draw up a short statement of his affairs, which he did with great accuracy. He placed his debts in one column, and his property in another,

opposite: But no arguments nor intreaties could prevail upon him to compare the columns, by which it would have appeared that he was master of a considerable sum: his attention was wholly occupied with the list of his debts, and he obstinately averted his eyes from the other column.

There is a case in which melancholics appear to have false perceptions, but I think it resolvable into intensity. This is when such patients accuse themselves of murder, or some other enormous crime, which they have not committed. This may happen in two ways: 1. Many cases of insanity consist of a mixture of mania and melancholy, in their commencement; in this state of the disease visions are common, which are referred to the prevalent ideas in the patient's mind, and are remembered as real occurrences, when pure melancholy has predominated. 2. Even in cases purely melancholic, the patient may mistake a dream for a real event.

Melancholics

Melancholics are always apt to impute their uneasy feelings, especially those arising from flatulence, to demoniacal action, and they will form the most extravagant suppositions, to account for the entrance of the demon into their bowels. Upon this subject it is vain to reason, and whoever attempts to ridicule the patient, loses his confidence entirely.

One of the most unhappy states of melancholy, is that in which the patient suspects an intention to poison him. With this impression, he obstinately refuses every kind of nourishment, and, unless managed by skilful attendants, dies of famine. I once saw a patient who had passed a fortnight without food, and who died of mere inanition: he resisted, to the last, every attempt to force a little wine into his mouth.

I have very generally found congestion in the brain, and effusion of water into the ventricles, on examining the heads of melan-

cholics after death: I have never been able to trace any connection between the symptoms of the disease, and the appearances on dissection, excepting in the cases I have mentioned elsewhere, of conversions to epilepsy, from maniacal disorders of long standing.

When a maniacal fit is going off, an appearance of stupidity and heaviness is rather a favourable symptom: the length of the lucid interval is generally proportioned to the degree of this appearance.

All degrees of insanity which affect the temper more than the understanding, are obstinate, as far as I have observed; and as these often happen in persons who seem otherwise perfectly healthy, there is a total want of indications in such cases. There is, however, an incurable sort of insanity, in which the patient, with great good-nature, is constantly on the watch for an opportunity of telling falsehoods. This is commonly a mixture of mania and melancholy. A lunatic

unatic of this sort makes himself the hero f every subject that chances to be men- oned in his hearing:

——— "Dives,
"Liber, honoratus, pulcher, Rex denique regum."

Maniacal disorders are commonly exas- rated in women, about the period of men- uation; in recent cases, a mitigation of the roxysm, or even a complete intermission ay be expected to follow the period, but in ronic cases no effect is to be derived from is incident, expecting a slight exacerba- n of the disease, from the agitation of the enstrual effort. When a lucid interval es happen, immediately after the period menstruation, it seldom continues longer an a few days.

The most general causes of insanity which have had occasion to notice, are hard rinking, accompanied with watching; pride; disappointment; the anguish arising rom calumny; sudden terror; false opinions especting religion; and anxiety in trade,

These operate chiefly on men.—From the peculiar situation of the other sex, their minds are sometimes deranged by the restraint or misdirection of passions, which were bestowed to constitute their happiness.

Many cases of conversion produce insanity; this disorder supervenes on the imprudent suppression of eruptions; on the extinction of continued fevers, or of pneumonic inflammation; on the extension of scrophula to the glandular parts of the brain; and on the irregularities of circulation produced in the puerperal state. Lieutaud mentions a woman, who was affected with mania, in consequence of a suppression of the menses, in her fiftieth year. She continued insane during seven years, and was restored to her senses by an uterine hæmorrhage.*

In recent cases of mania, there is commonly much disorder in the functions of the stomach; vomiting, therefore, is usually

* Hist. Anat. Med. Tom. 1. p. 320. obs. 1369.

employed,

ıployed, and it not only relieves the ient from a temporary cause of irritation, clearing the first passages, but sometimes ›duces a favourable change in the mental ease.

M. P. a young woman, came under my e, Sept. 5th, 1792; she was in a state of ious agitation, and her ideas were totally ıfused. She could not be brought to at- d to any object, and it was impossible to ain an answer from her to any question. rdered her a vomit of tartar emetic, in the ıal manner, which operated briskly, and ł an instantaneous effect in restoring a de- :e of rationality. On the 10th (five days ≅r), the report was, "continues rational." ≅ was discharged cured, soon afterwards. ch a degree of success must not often be pected from this remedy.

Emetics are sometimes useful, in diverting ıtients from capricious resolutions. An el- :rly gentleman, in a state of melancholy, determined

determined to retain his urine, and persevered, in his resolution during three days and two nights, though evidently with great pain and difficulty. I ordered some doses of emetic tartar to be mixed with his food, which he took with some caution; copious vomiting was excited, and at the same time he parted voluntarily with a large quantity of urine; the sudden stimulus given to the distended bladder, by the action of vomiting, proving too strong for his resolution. This caprice did not return upon him afterwards.

The repetition of vomits, and the use of antimonial preparations, in nauseating doses, are certainly proper in maniacal cases: the uneasy sensations which they excite, seem to recal the patient's attention to a regular train. But in melancholics, the addition of these depressing ideas would only encrease the disease, by furnishing an opportunity for some new fancies; melancholy madmen being, as I have already observed, great theorists. Though a single emeti-

ma

may do considerable service, therefore, in such cases, it ought not to be repeated without a manifest indication.*

In maniacs, who are young and plethoric, whose eyes are turgid or inflamed, who pass the night without sleep, and whose pulse is quick and full, general blood-letting ought to precede the use of emetics. A lady of a full habit, who was seized with maniacal symptoms after a slight fit of cholera, was restored to her senses by a single, copious bleeding. But the repetition of this remedy is nice and difficult, as it is seldom capable of removing the disease, without the conjunction of other methods, and as an extraordinary loss of blood may precipitate the patient into an irrecoverable state. I have seen maniacs bled till they became melancholy, and melancholics, by repeated venæsection, reduced to despair.

* Since the former sheet was printed, the girl, mentioned in p. 121, has again been put under my care, in a state of furious mania, and has again been cured by exhibiting emetic tartar, first in vomiting, afterwards in nauseating doses.

It is only in case of evident congestion, with an apoplectic tendency, that the repetition of bleeding can be reckoned admissible. I have, indeed, twice known maniacal paroxysms removed by a single bleeding, but they were both recent cases, and in one relapse soon followed; in the other, there was a conversion to palsy, and afterwards to apoplexy. There is always reason to suppose congestion in mania, after fevers; but when congestion happens in habits much reduced by the previous disease, general evacuations must be very cautiously employed. Those facts which I have mentioned elsewhere, relating to the occurrence of spontaneous hæmorrhage in cases of typhus,* seem to admit a greater latitude in this respect, than has hitherto been permitted. Some practitioners prefer bleeding in the neck, in this disorder, but I have not been able to discover, that it is more effectual than bleeding in the arm.

* On the Conversion of Diseases, p. 29.

Purgatives

Purgatives are undoubtedly useful in most cases of insanity; but only when moderately given. I have used the celebrated melampodium in a great number of cases, so as to purge the patient gently, twice or thrice a week: I have found no reason to believe that it operates otherwise than as a cathartic. For a considerable time past, I have preferred calomel, both as a safe and easy purgative, and as considerable hopes have been excited, of benefit to be derived from its proper action as a mercurial preparation. I shall give here the result of my observations respecting this remedy, in which, I confess, I have been much disappointed. Farther experience, and a nicer discrimination of the scrophulous causes of insanity, against which nothing can be hoped from mercury, must fix our opinion decisively respecting this method of treatment.

1. J. J. a young man, of a full habit and florid complection, after receiving some gloomy religious impressions, fell into a fretful,

ful, discontented state, and in the course of a few weeks became maniacal, with a mixture of melancholy. When I saw him, his eyes were inflamed and looked wildly; he was restless, querulous, and irascible. Bleeding, vomiting with emetic tartar, and purgatives were used without effect. He was then put upon a course of calomel, which was continued till his mouth became very sore, without any abatement of the maniacal affection.

2. Mrs. T. a married woman, of middle age, became melancholy without any sensible cause. She talked incoherently, was fretful, and frequently wept. Not long before I saw her, she had made an attempt upon her life. She took calomel, with opium, from the 21st of June to the 5th of July, when, her mouth being very sore, the mercury was discontinued, and the opium was given alone. The bark was afterwards thrown in: under this course, she became rather more composed, but no benefit was obtained, proportioned to the activity of the remedies.

3. An

3. An elderly gentleman, who has been for several years in a state of amentia, has twice been affected with a considerable herpetic eruption on the neck and shoulders, for which calomel was administered in the form of Plummer's pill. His mouth was made very sore, each time, and the eruptions were removed, but no effect was produced on the state of his mind.

4. Mrs. J. a married woman, about the age of forty, was affected with a mixture of mania and melancholy. About the commencement of the mental disorder, her skin became diseased, and was covered, when I saw her, with a furfuraceous eruption. To remove this cutaneous affection, appeared a rational indication. She was put upon a course of Plummer's pill, and her mouth was made sore, but no relief was obtained.

5. Mr. T. P. a maniac, not furious, but full of troublesome, false perceptions, among other remedies, was ordered a course of calomel

calomel with opium. His mouth was affected after some time, when finding no benefit from the medicine, I omitted it.

This remedy was tried in several other cases, of which my notes are incomplete, with equal ill success. It is proper, however, that I should mention two instances, where, if the calomel alone did not cure, it must be allowed to have assisted in restoring health.

6. J. B. about twenty-six years of age, had been for some time in a state of furious mania, when I saw him. He took vomiting doses of tartar emetic, and afterwards, two grains of solid opium at bed-time, which was gradually encreased to seven grains, twice a-day, without any sensible advantage. The opium was given, nearly during *two months*, and he took fourteen grains a-day, upwards of a week. Finding it of no use, after so full a trial, I omitted it, and ordered him to go thrice a week into the warm bath, to remain there a full half hour each time, and

to

to take three grains of calomel every night, at bed-time. During this course, his fury abated, and he became brutal and stupid. His mouth was pretty severely affected, during several weeks. The mercury was continued or omitted, according to the state of his gums, and at the end of five months he was completely cured.

In this patient, there was great obduracy of natural temper, and insensibility to remedies. It was therefore necessary to institute a tedious mercurial course, in order to produce the desired effect. I believe the long immersion in the warm bath must be allowed to have operated, both by calming his fury, and by disposing the system to favour the mercurial action.

7. A lady of a domestic, industrious disposition, fell by degrees into a maniacal state, which discovered itself chiefly by an uncommon levity in her conversation and behaviour. She could recollect, but never totally

restrain herself; was noisy, familiar, and constantly disposed to run and jump about. Her perceptions were quick, and I could not discover that they were, in any instance, false: so far the case was very singular. She had a considerable tumor, on account of which there was a necessity for her submitting to a painful operation, of some length, soon after she came under my care. She consented to the proposal, bore the operation with great firmness, and recovered from it without a single bad symptom: in every thing relating to it, she perfectly understood her own situation. But when the wound was healed, her mental disorder did not appear to be abated. As she was now in full health, I put her on a mercurial course, but I found that small doses of mercury operated with her as strong cathartics. Her habit was so full, that I saw no inconvenience from throwing in the medicine, so as to support a loose state of the bowels; it was therefore continued for nearly three weeks. The usual dose of calomel, during the latter part

of

of that time, was only half a grain, and her mouth, as may be supposed, never became sore. After the calomel was given up, a spontaneous diarrhæa came on, which seemed to relieve the mental affection. She took two grains of opium every night, but I was not anxious to check the discharge, as her mind became more composed during its continuance. The diarrhæa gradually ceased, and she remained free from every maniacal symptom after its disappearance. The spontaneous diarrhæa, I conceive to have been an effort of the constitution, in one word, a conversion, by means of which the affection of the brain was extinguished. It is probable, that the purging excited by the mercurial course, might in some measure determine the nature of the effort, and turn that force to the internal surface of the intestines, which might otherwise have been exerted on the hæmorrhoidal, or uterine vessels. So far this case seems to encourage the practice of brisk purging in maniacs. But few instances occur, in which the patient's

robust, and even luxuriant health, and undisturbed natural functions, will equally justify the carrying this method to any great extent.

Upon the whole, I think calomel deserves to be farther tried in cases of insanity. From the benefit which I have seen accompany the use of cream of tartar, as a laxative and diuretic, in congestion of the brain, I have been led to order it in melancholic cases, where the disease seemed to depend on a course of this nature.

An elderly lady, whose constitution had an invincible tendency to plethora, was attacked by symptoms of melancholia. I ordered her cream of tartar, in such doses as to affect both the bowels and kidnies, and with the happiest effects. Her pulse, from being full and quick, became natural, and she recovered in the space of a month.

It gives me real concern to state, that I have

have scarcely any observation of importance to make, in addition to these pages, after much additional experience, The plan of constant, gentle purging answers very well, in cases of melancholy, when the habit is full, not otherwise. From the tepid bath, in melancholic cases, I continue to derive much advantage; and the use of the hot bath in mania, continued to the period of half an hour, or an hour, sometimes affords great relief: but in this I have met with disappointments, mixed with some striking instances of success,

From some cases, I had been induced to entertain great expectations from the combination of camphor and digitalis. In one instance, where it had been ordered before I was called in, by Mr. Tomlinson of this place, the effects were very striking, in lowering the pulse, and removing the mental irritation. I have found the combination useful in other cases, but not uniformly. It has proved very serviceable, however,

in pneumonia, and in irritable coughs, accompanied with general fever. In some recent instances of mania, I have used emetic tartar in nauseating and vomiting doses, and have immediately followed up the exhibition of that remedy with small doses of calomel, till the gums have become affected: I have then given the bark. As far as I have tried this method, it seems to answer very well, in mixed cases of mania and melancholy, or in mania arising in weak habits, where there are no symptoms of congestion, or of oppression of the brain.

The liberal use of bark and wine is clearly indicated in many cases of melancholy. A weak pulse, want of appetite, flatulence, emaciation, and expressions of grief and fear, similar to the low delirium in typhus, are often united in this complaint.

A. G. a married woman, aged about thirty-six, fell into a deep melancholy, attended with the symptoms I have just described:

described; after evacuating her bowels, she was ordered the bark in substance, which removed all her complaints in less than a fortnight.

J. H. a young man, was reduced by the same series of complaints to a state of great weakness, and at length to complete amentia. He had some doses of calomel, but not in sufficient quantity to affect his mouth. He was then put on the use of bark in substance, and of the cold bath. Under this treatment he recovered his strength and flesh, became more chearful, and was enabled to answer some questions. He has not yet recovered the complete use of his faculties.

E. B. an elderly woman, was attacked by a fit of deep melancholy, to which she had been formerly subject. Bark in substance, and the cold bath, were directed for her, with an opiate at bed-time. She was cured in six weeks, but relapsed about the same time in the succeeding year.

For the other general remedies of insanity, I must refer to what I have published in the first part of the *Medical Histories and Reflections.*

The management of the mind is an object of great consequence, in the treatment of insane persons, and has been much misunderstood. It was formerly supposed that lunatics could only be worked upon by terror; shackles and whips, therefore, became part of the medical apparatus. I have absolutely seen, among the rules of a lunatic hospital, one which declared, "that "the keeper might beat the patients, pro- "vided it were done with discretion, and "by order of the physician!" I will go no farther into this shocking subject; it is now unnecessary to withdraw the veil, which covers the tortures, the murders, which at a former time were inflicted on this wretched class of patients, in places provided for their reception. A system of mildness and conciliation is now generally adopted,

adopted, which, if it does not always facilitate the cure, at least tends to soften the destiny of the sufferer.

I have seen great exertions thrown away, in attempting to influence lunatics by arguments, or to surprise them into rationality by stratagem. I never knew such endeavours answer any good purpose. The stories current in books, of wonderful cures thus produced, are, like most other good stories, incapable of serving more than once.

A system of discipline, mild, but exact, which makes the patient sensible of restraint without exciting pain or terror, is best suited to those complaints. In the furious state, the arms, and sometimes the legs must be confined, but this should never be done when it can possibly be avoided. When the patient is mischievous and unruly, instead of ordering stripes, I shut him up in his cell, order the window to be darkened, and allow him no food but water-gruel, and dry

dry bread, till he shews tokens of repentance, which are never long delayed, upon this plan. Previous to this kind of punishment, I find it useful to remonstrate, for lunatics have frequently a high sense of honour, and are sooner brought to reflection by the appearance of indignity, than by actual violence, against which they usually harden themselves.

It is owing to the sense of restraint, that lunatics recover more quickly when they are removed from home. While they remain with their friends, the disease seems to acquire additional strength, from the concern and exclusive attention of which they are the objects; among strangers, they find it necessary to exert their faculties, and the first tendency to regular thinking becomes the beginning of recovery. It must be acknowledged, that the desire of returning home sometimes grows ungovernable in melancholics, and it becomes necessary to indulge them with a short interview with some

some object of particular attachment. At such times, it is dangerous to relax too much, and to favour the error, under the influence of which, their partial relations mistake the earnest desire of returning, for the revival of reason. Much self-restraint, much eloquence, and artifice, are often shewn by the patient on these occasions, which, according to the management of the attendants, prove either salutary or mischievous.

Though I would exclude every thing painful and terrible, from a lunatic-house, yet the management of hope and apprehension in the patient, forms the most useful part of discipline. Small favours, the shew of confidence, and apparent distinction, accelerate recovery; while seclusion and solitude, diminution of light, and privation of the customary food, mitigate the furious and malicious patients.

It has long been my wish, that a room might be appropriated in our hospital, to convalescents,

convalescents, and that the privilege of admission to it might be made the reward of regular behaviour among the patients. Such a distinction would act powerfully in creating a habit of self-restraint, the first salutary operation in the mind of a lunatic. For in the cure of diseases of this nature, the patient must 'minister to himself;' medicine may restore him more early and more completely to the command of his intellectual operations; discipline must direct him in their exertion.*

* I have known recovery take place, rather unexpectedly, where I could attribute it to nothing but the train of reflections, produced by the visits of the physician. The case to which I allude, was a mixture of melancholy and mania, but melancholy predominated greatly, and the frequent appearance of the practitioner excited much enquiry and speculation in the patient, which had a happier tendency than usual.

REMEDIES OF DROPSY.

REMEDIES OF DROPSY,

Continued from Vol. I.

IN pursuance of the plan for establishing some general rules for the cure of Dropsy, I now lay before the public a short view of my hospital practice in that complaint, mixed with some private cases, since the publication of the former volume. From a sufficient number of facts thus collected, we might learn, what remedies deserve a preference on the first trial; how long the exhibition of any single medicine may be continued, when signs of recovery do not appear from its use; and in what manner hydragogues may be intermixed, with the greatest prospect of success. These are rules which books do not teach us at present: Dr. CULLEN has even declined the task of specifying

specifying diuretics, in his *First Lines*, because he could find no reasons for choosing among them in practical authors. The want of discrimination in this matter, is a defect which every young practitioner must feel strongly, and which can be but slowly supplied; for the majority of dropsical disorders are inevitably fatal, and the palliative practice which incurable cases require, is not very instructive.

CREAM OF TARTAR.

HISTORY I.

Joseph Bradshaw, aged forty-seven, admitted March 5, 1792, had a troublesome dry cough, pain in both arms, shooting down to his fingers, and orthopnœa. He had been ill three years, and unable, during a long period, to lie down in bed. His urine was scanty. He began the use of cream of tartar on the 6th, and on the 8th his urine was encreased, and he was much easier. He could now lie down in bed. On the 22d all his symptoms were gone, and the cream of tartar was omitted on the 29th.

. His symptoms returned on the 26th
pril, but were again removed by the
m of tartar, and he was discharged
d, May 15th.

HISTORY II.

lagdalen Cross, aged seventy-four, ad-
ed March 5, 1792, had been ill for three
ths, of considerable anasarca in the lower
mities. She took cream of tartar as
l, which purged her severely. On the
her swellings were nearly gone, and she
dismissed cured on the 4th of April.

HISTORY III.

hn Beswick, aged fifty-eight, admitted
h 19, had anasarcous swellings of the
r extremities, of a week's continuance.
ook cream of tartar: on the 22d his
was encreased, and the swellings were
He was discharged cured in a few
s.

HISTORY IV.

seph Wilcock, aged thirty-seven, ad-
d April 30, had been suddenly attacked

with anasarca ten days before: his scrotum was much distended. His urine was scanty. He took cream of tartar; on the 8th his urine was encreased, but the swellings were not diminished; on the 14th the swellings were less, and he passed a great deal of urine: on the 18th he was completely well.

HISTORY V.

John Clough, aged fifty, came under my care, August 30th, with anasarca of both legs. There was an ulcer on the left, but no water drained off by it. He had begun the use of cream of tartar before I saw him, with little effect. I encreased the quantity to six drachms. On the 31st the swellings were less. On the 10th of Sept. they had entirely disappeared. I believe he has since relapsed.

HISTORY VI.

John Birch, aged twenty-five, admitted Sept. 27, 1792, was seized with ascites and anasarca, after the confluent small-pox. He was prodigiously distended, and the cellular membrane

membrane of the penis and scrotum was completely filled. He took cream of tartar; Nov. 3d, he was purged, passed more urine, and the swellings were less. On the 10th the swellings were much diminished; on the 16th they were almost gone, and he was discharged soon after.

HISTORY VII.

Mary Newton, aged thirty-five, admitted Nov. 1792, had a dry cough, orthopnœa, and had been unable to lie down in bed for some months. She had considerable anasarca in the lower extremities, and some degree of it in both arms, but more in the left arm. She also complained of dull pain, and sometimes a tingling sensation, in the left arm. She began to take cream of tartar immediately, and as the cough was very distressing at night, she had small doses of opium and camphor at bed-time. Nov. 9th, she was much easier; her urine was encreased, and she was little purged. She continued easier, but the swellings did not abate till the 23d,

when the feet seemed diminished, but the legs were much distended. On the 15th Dec. she was much better, and could lie down in bed. She was now taking six drachms a-day of cream of tartar. On the 20th the swellings were entirely gone, and her respiration was perfectly free; but she complained of rheumatic pains, which were removed in a few days, by the use of the pulvis sudorificus.

HISTORY VIII.

A man, aged sixty, applied to me, March 3d, 1792, ill of ascites and anasarca. He had likewise a great degree of orthopnœa, and a distressing cough. His disorder had continued for a year and half, and the swellings had been preceded by a dry cough, orthopnœa, and tingling in his left arm and hand. I ordered him cream of tartar. On the 8th his swellings were less, and his urine was encreased; from the 10th to the 18th the swellings fell, and he passed much urine. On the 24th the swellings were stationary; two

grains

grains of gamboge were therefore added to the cream of tartar. On the 25th he was better: by encreasing the dose of cream of tartar to six drachms, and then to an ounce, and by occasionally adding gamboge, he was nearly well on the 4th of April; and on the 11th thought himself well enough to discontinue his medicines.

On the 16th of May, however, he returned, as much swelled as ever, and extremely costive; he scarcely passed any water. I ordered him a bolus, composed of squills, calomel, and gamboge, which operated briskly, and reduced the swellings. On the 30th the swellings were stationary. He was now purged with an electuary, composed of cream of tartar, gamboge, and allap, but as the disorder did not give way to this method, I had recourse, on the 20th of June, to mercurial friction, and the regular use of spiritus ætheris nitrosi. At this time, the integuments of the scrotum and penis were greatly distended. His urine

soon encreased in quantity, and about the beginning of July his swellings began to diminish. In the middle of July, the swellings were entirely gone: he was then put on a course of tonic remedies. In the beginning of August, he could lie down easily in bed. He occasionally took doses of cream of tartar, and always with relief, when he was threatened with a return of his complaint.

Towards the beginning of December, he relapsed, and after trying various remedies with little relief, was ordered digitalis; the affection of the breast having become very distressing. By degrees he took the quantity of four grains a-day, and was sensible of some relief; on the 25th his swellings were much decreased, and in the beginning of January were entirely removed. His breathing became natural, his cough left him, and he could lie down in bed. No complaint remained, but weakness. Feb. 27th, he called on me, free from swellings and orthopnœa.

HISTORY

HISTORY IX.

Elizabeth Wells, aged fifty-eight, much debilitated with anasarca and ascites of long standing, began to take cream of tartar on the 8th of Dec. 1791. she obtained no relief, and died on the 28th of the same month.

HISTORY X.

Mary Williams, aged two, was admitted 8th May, with anasarca and ascites, of two months duration. She was ordered a drachm of cream of tartar, in two ounces of mint-water, every night. On the 24th, her swellings were much lessened, and at the end of the month she was discharged cured.

HISTORY XI.

Ann Lees, aged thirty, admitted June 18th, had been ill of ascites for a month. She was put on a course of cream of tartar, but being much debilitated, took a dose only once in two days, and used tonics occasionally. On the 19th of July, it was

necessary to encrease the dose of cream of tartar to six drachms. In the beginning of August her swellings were gone, and she was seized with hæmoptöe, for which she was ordered digitalis, in encreasing doses, and the cream of tartar was omitted. On the 23d of August, she was nearly as much swelled as ever. The cream of tartar was then repeated, and she was discharged cured on the 8th of October.

HISTORY XII.

John Roberts, aged fifty, admitted July 2, had ascites and anasarca of a fortnight's duration. He was ordered cream of tartar, and six ounces of the cerevisia diuretica were directed to be given warm, every night at bed-time. He was discharged cured on the 20th of August.

HISTORY XIII.

John Campain, aged twenty-five, admitted July 23d, had been ill of anasarca for a fortnight. He took cream of tartar: my report of him on the 30th is, "much better; swellings down."

down." He discontinued his attendance in August, probably having recovered.

HISTORY XIV.

John Taylor, aged thirty, admitted January 2, had been seized with ascites and anasarca some weeks before, in consequence of exposure to cold. I ordered him to take half a drachm of Dover's powder at bed-time, which sweated him plentifully, and diminished the swellings in some degree. But as his urine did not encrease, and the swellings continued, he was afterwards ordered cream of tartar. On the 7th, his size was reduced, and his urine encreased. On the 9th, his swellings were almost gone, and the cream of tartar was omitted. A troublesome cough remained, which gave way to the common remedies.

HISTORY XV.

Mary Leech, aged forty-eight, admitted July 1st, 1792, after a tedious dyspeptic complaint, and severe pain in the stomach, was seized with ascites and anasarca. She had

had a cachectic appearance, and symptoms of obstruction in the liver. She was ordered to use friction with mercurial ointment, and to take the spiritus ætheris vitriolici. On the 17th she was costive, and the swellings were nearly in the same state. She was ordered to take five grains of gamboge, in a draught, with a drachm of spiritus ætheris nitrosi. This she threw up, and her complaints continued, but her urine was rather encreased. The cathartic draught was repeated. Aug. 7th, the swellings were encreased. She was then ordered two grains of gamboge, with half an ounce of cream of tartar, every morning. On the 20th, her swellings were gone, but she was extremely weak. She was put on a course of tonic remedies, but languished, without any appearance of recovery: the swellings did not return, but she died, quite extenuated, on the 15th of September.

HISTORY XVI.

Frances Clough, aged seventy-four, admitted March 8th, 1792, had been ill for six weeks,

ks, of anasarca, ascites, and hydrothorax. swelling on the back of each hand was h and puffy. She began to take cream tartar on the 8th. Next day she was er. On the 18th her complaints were ionary: on the 24th, no better. She now ordered a cathartic draught, with grains of gamboge, and two drachms spiritus ætheris nitrosi, which purged, did not relieve her. On the 26th she tinued very ill, and the backs of her ds were greatly swelled. She died on 28th.

HISTORY XVII.

Mary Thompson, aged thirty, was ad- ted Feb. 27, 1792, ill of ascites. She ordered cream of tartar, which lessened swelling, but as the purgative effect was ere, it was only given occasionally, and ics were interposed. On the 19th of rch, the spiritus ætheris vitriolici was stituted for cream of tartar, and she was nissed cured in the beginning of April.

HISTORY

HISTORY XVIII.

Mary Smith, aged forty-two, admitted July 30th, 1792, had ascites; at the same time there was a soft, inelastic tumor on the left side, which appeared to proceed from distention of the ovarium. She was ordered mercurial frictions, with sp. ætheris vitriolici. Aug. 9, there was no change. She was then ordered a draught, with gamboge and sp. ætheris nitrosi. On the 13th, she was costive; the local tumor was diminished, but the general fulness of the abdomen was the same. She was then put on a course of cream of tartar, and the former method was discontinued. On the 23d, the cream of tartar was encreased to six drachms, and the friction repeated. On the 6th of September, her swellings were much abated, but she was costive. She was ordered an ounce of cream of tartar every morning, and the friction was omitted. Nov. 8th, she was again costive, and the cream of tartar was encreased to ten drachms. On the 28th of December, she was nearly well. She was soon after discharged cured.

HISTORY

HISTORY XIX.

Peter Morgan, aged forty-two, admitted
ɔ. 1, 1794, with ascites and anasarca, took
am of tartar during a fortnight, with much
ef; his swellings were abating, when he
expectedly quitted the hospital, and dis-
ɔointed me in my hopes of seeing a
ourable event of the case.

HISTORY XX.

John Mardley, aged sixty, was admitted
ly 30th, 1792; he had been ill of ascites
d anasarca for a fortnight. He was order-
cream of tartar in the usual form. On
ɛ 2d of August, the dose was encreased to
drachms. On the 20th, the swellings
ɛre not diminished. Sept. 3d, however,
ɛ swellings were less. On the 13th, the
ɛam of tartar was encreased to an ounce.
ı the 17th, the abdomen was diminished,
ıt the anasarca was encreased, and extend-
g upwards. He was much oppressed, and
idently worse on the whole. The cream
of

of tartar was therefore omitted, and he was ordered to take half a drachm of the virga aurea in powder, twice a-day, with half a pint of the cerevisia diuretica. On the 20th, his swellings were the same, but he passed more urine: the virga aurea was repeated thrice a-day. On the 27th, his urine was still encreasing. On the 15th of Oct. the virga aurea was repeated four times a-day. On the 18th, he had no purging, passed more urine, and was less swelled. On the 22d, he was in the same state, but the virga aurea was consumed: six drachms of cream of tartar were therefore ordered every morning. Nov. 8th, the swellings lessened considerably; and continued to fall on the 12th. Dec. 10th, the cream of tartar was encreased to an ounce. On the 17th, the swellings were greatly diminished. Towards the middle of January, they were almost gone, but he complained of dimness of sight, and violent head-achs. He sometimes observed, however, that the cream of tartar did not lessen his size so quickly as the green powder

der had done. In February, he was made an out-patient, and his attendance became irregular; but he was discharged cured about the middle of April.

HISTORY XXI.

Sarah Hughes, aged fifty, was ill of ascites, with some swelling in the lower extremities. She had been affected with dropsy formerly, and had been tapped not long before she came under my care, but was now encreasing again in size. I put her on a course of cream of tartar, the dose of which was occasionally encreased, and in the course of two months her swellings were almost entirely removed.

HISTORY XXII.

George Musgrave, was ill of anasarca, with some degree of ascites. I ordered him cream of tartar, in the usual manner, which reduced his swellings in the course of a few weeks. By returning too early to his work, he brought on a relapse, and an obstinate ascites was formed, which resisted cream of tartar,

tartar, nicotiana, and every other means of relief. Mercury was employed, as a last resource, but without effect, for he died, completely exhausted.

HISTORY XXIII.

A gentleman, somewhat advanced in life, of a very delicate habit, and long a valetudinarian, consulted me in Dec. 1793, for a considerable degree of anasarca, and an incipient ascites. I directed the cream of tartar to be given, but in doses of two drachms only. It did not sensibly encrease his evacuations, either by stool or urine, but he soon began to walk up stairs with less difficulty, and in the course of a fortnight, his swellings were entirely removed. He has continued well ever since.

HISTORY XXIV.

William Bradley, aged eight years, was admitted Aug. 19th 1794, ill of a typhus. In a few days after I saw him, ulcerations of the inside of the mouth and cheeks came on. When these symptoms were decreasing, by the

the use of tonics, he was affected with ascites and anasarca, and was soon greatly distended. I ordered him digitalis, but it proved ineffectual. I then put him on a course of cream of tartar, supporting him at the same time with wine. Under this method, the dropsical symptoms gave way rapidly, and he was discharged cured, Sept. 25th.

HISTORY XXV.

George Adams, aged one year and three-quarters, had been ill of ascites for twelve months. He was ordered three ounces of the hydragogue solution every morning, which was encreased to five, and as the swellings abated, to eight ounces, in the course of six weeks. But the prospect of recovery was destroyed, by the accession of a smart teething-fever, in the progress of which his swellings returned, and he was carried off.

HISTORY XXVI.

Ruth Ratcliffe, aged twenty-five, was admitted, April 7th, 1793. She had been ill of

ascites and anasarca upwards of two months. She was ordered the hydragogue solution, which encreased her urine, and diminished the swellings, and she was discharged cured on the 18th of August.

HISTORY XXVII.

John Wood, a middle aged man, had been affected with ascites and anasarca for several weeks. He had an incessant, teazing cough, orthopnœa, and could not lie down in bed. He took the hydragogue solution, in the usual manner, and in six weeks was discharged cured.

HISTORY XXVIII.

William Winterburn, an elderly man, was admitted Nov. 21st, 1794, ill of anasarca, incipient ascites, and very troublesome cough. He was ordered the hydragogue solution. In a few days, it was necessary to encrease the quantity of cream of tartar to six drachms a-day. On the 25th, his swellings began to decrease; he passed more urine

urine and had two stools or more every day. On the 28th, his swellings were much lower, but his cough was still harrassing. Dec. 12th, the swellings were nearly gone. On the 15th, his legs swelled again: the cream of tartar was encreased to an ounce. A few days afterwards, it was augmented to ten drachms; then to an ounce and half. In the beginning of April he was free from his dropsical symptoms.

HISTORY XXIX.

Mary Byrom, aged forty-three, admitted Oct. 14th, 1793, had been ill of ascites for six weeks. She was ordered the hydragogue solution. On the 17th, she passed more urine, and her swelling had decreased two inches. A few days after, the cream of tartar was encreased to six drachms. The swelling was still lessening. But on the 4th of Nov. she again encreased in size, and her urine became scanty. The cream of tartar was continued, without effect, till the 21st, when it was exchanged for the tonic pills. They encreased her urine at first, though

she did not take them regularly. On the 20th January her swellings were nearly gone. She was then put on a course of tonics, and was discharged cured in the beginning of April.

HISTORY XXX.

Mary Bury, aged nine, a girl of a cachectic appearance, had an ascites of several months standing. The abdomen was enormously distended, and was encreasing rapidly in size, when I saw her, March 20, 1794: she was put upon the use of the hydragogue solution. She took only two drachms of cream of tartar at first, but it was soon encreased to half an ounce, and afterwards to six drachms. On the 9th of April, the swelling had decreased an inch. She then began to complain of violent pain in the lower part of the abdomen, which returned every night. On the 11th, the swelling encreased again: gamboge with spirit of nitre was interposed without effect. On the 22d, she was seized with vomiting and purging of blood, and expired. I could not obtain leave to inspect the body.

HISTORY

HISTORY XXXI.

Martha Yates, aged twenty-three, was ɜed with ascites and anasarca, after deli- y: the dropsy had continued five weeks en I saw her. She had used various ıedies, and among others two doses of *erium*, after the last of which her swelling ɜreased. March 30th, she was ordered hydragogue solution, which purged her erely, and somewhat encreased her urine. ıe dose of cream of tartar was therefore ɜened to two drachms. On the 4th of ɔril, the swelling of the abdomen had ɔreased two inches and a half. She had ıny stools, and passed more urine. On ɜ 11th she had fallen half an inch more; t this was the period of our good success. ıe swellings, after that time, encreased ıin, and her cough became more distress- ɜ. She was then ordered digitalis with ium, calomel with squills, and jallap, thout relief. After this, I directed her to ɜ mercurial frictions, and the spiritus ıeris vitriolici, till her mouth became

slightly sore. The distention encreasing, and great pain in the left side coming on, it was necessary to tap her. A considerable quantity of water was drawn off, after which I again endeavoured to affect her mouth by mercurial frictions. She began, however, to fill again, and the pain in her side returned. A variety of diuretics was employed; but the abdomen growing again extremely distended, another operation became necessary. After the second tapping, she continued to feel violent pain, and her strength sunk rapidly. She died in July, and I was not permitted to open the body.

HISTORY XXXII.

Robert Berry, had been ill of ascites and anasarca for four years. He was put on a course of cream of tartar, in the usual manner, Feb. 16th, 1795. On the 9th of March, it was encreased to six drachms; his swellings were then abating. On the 19th it was augmented to an ounce. April 6th, he was nearly well.

HISTORY

HISTORY XXXIII.

Ellen Green, aged eighteen, had ascites, and incipient anasarca, of a month's standing. She began a course of cream of tartar, March 2, 1795; it was augmented to six drachms, afterwards to an ounce a-day. April 6th, her swellings were removed.

DIGITALIS.

HISTORY XXXIV.

Sarah Duxbury, aged eighteen, had been ill of anasarca for some time before she came under my care, Dec. 19, 1791. She was ordered a grain of digitalis daily. Her urine was soon encreased, and she was cured in the beginning of February. This was a slight case.

HISTORY XXXV.

Ann Brown, aged sixty-nine, was admitted April 11th, 1792, with ascites and anasarca

of a month's standing. She had a severe diarrhœa, which prevented me from using cream of tartar. I ordered her a grain of digitalis in a draught, with a dose of spiritus ætheris vitriolici, and twenty drops of laudanum. Next day the digitalis was continued. Her urine was encreased: On the 13th the urine was passed in a quantity three times larger than before, and the diarrhœa was stopt. But an unfavourable change soon took place. On the 19th her diarrhœa returned, and the swellings were stationary; on the 21st they encreased, and she continued to swell more till the 29th. Early on the 2d of May, she died, and was inspected in the afternoon. When the body was opened, we found a good deal of water effused in the abdomen. The liver was not more than half the natural size, scirrhous, and full of tubercles. The pancreas was much indurated and diseased: the spleen was enlarged. The caput cæcum coli appeared diseased, and full of tubercles. The jejunum was inflamed, for an extent of several

several inches. There were adhesions between the rectum, and the posterior part of the uterus. The ovaria were small and hard.

In the thorax, there was an effusion of water on the right side, and there were adhesions, and a slight effusion on the left. There was some water in the pericardium. The heart and lungs were sound.

HISTORY XXXVI.

Peter Lomax, aged twenty-one, pale and much emaciated, came under my care for ascites, and vomiting of blood, Feb. 10, 1794. He had been ill upwards of a year. He took digitalis in encreasing doses, till he reached the quantity of a grain four times a-day. April 7th, his swelling was decreased, and the hæmorrhage was entirely suppressed. After this time, his complaint became stationary, and he complained of violent palpitations of the heart. On examining his breast, there was an evident extension of the pulsation of the heart, across

across the thorax. It was so distinctly marked, in this extenuated subject, as to impress a forcible belief that the right auricle was considerably dilated. In September, the swelling of the abdomen was reduced by a spontaneous diarrhœa, but the hæmorrhage frequently returned, and he had bloody stools. Digitalis, opium, and wine afforded no relief. He died soon after, and I was refused permission to inspect the body.

HISTORY XXXVII.

John Jones, admitted Oct. 1792, of a cachectic appearance, pale, and extenuated, had anasarca and ascites in a considerable degree. He took digitalis without relief, but it was difficult to ascertain the effect of his medicines, as he laboured under a constant, slight delirium. He died in a few weeks. When the body was opened, we found water effused in the thorax and abdomen, but no other particular appearance, the viscera being perfectly sound.

BACHER'S

BACHER'S TONIC PILLS.

HISTORY XXXVIII.

'illiam Exell, admitted Nov. 17, 1793, a tedious fever, was attacked by ascites anasarca. As there was reason to sus- obstruction of the liver, I put him on a se of calomel, but could not remove the lings by it, though his mouth was affected. en ordered him the tonic pills, which :ted his cure, after he had persevered in : use for a considerable time. This was ry obstinate case.

HISTORY XXXIX.

Henry Robinson, aged sixty-three, was itted April 7th, 1792. He had ascites anasarca, with a harassing cough. The ks of his hands were greatly distended ı water. I ordered him five grains of ıboge in a drachm of spiritus ætheris osi. Next day he had three stools, and swelling of the abdomen had decreased.

He

He was then put on the use of cream of tartar. On the 10th he was no better; the gamboge draught was repeated. On the 11th, he had nine stools, and the abdomen had decreased five inches over night. This morning it had swelled again. April 12th, he had several stools, and the abdomen decreased three inches. I thought this a favourable time to order digitalis, and he began to take it this day: 13th, he had decreased another inch; the dose of digitalis was augmented to two grains a-day. April 19th, no progress had been made: the tonic pills were now directed; he took nine a-day. 21st, abdomen decreased two inches; respiration easier, six stools since the preceding day. The pills were continued. 25th, the size of the abdomen was much lessened, but the anasarca was encreasing; it rose upon the chest, and swelled him to the points of his fingers. 28th, the abdomen is completely reduced to a natural size, but the anasarca extends upwards. I ordered a small blister to be applied to the middle of the breast. May 1st, the draining of the blister

blister continued. 5th, had six watery stools, passed more urine, and the anasarca diminished in fullness. 7th and 8th, the anasarca was encreased again: another blister was applied. May 9th, he was seized with a vomiting of blood, and expired.

HISTORY XL.

Mary Adshead, aged thirty-one, admitted Sept. 16, 1794, ill of ascites, took cream of tartar without relief. She was then ordered the tonic pills, and persevered in using them for some time, but deriving no advantage from them, she discontinued her attendance.

MERCURY.

HISTORY XLI.

Ann Hassel, aged seven, was admitted Feb. 27, 1792, ill of ascites. She was ordered to rub in a drachm of the unguentum cæruleum fortius, twice a week, and to take about twenty drops of the spiritus ætheris vitriolici four times a-day. On the 8th of March,

March, her swelling was diminishing, and she passed more urine; on the 19th, the swelling was gone, and she was discharged cured.

HISTORY XLII.

J. Kearsley, aged sixty-four, was admitted about the end of April, 1792, with ascites. He was a thin, infirm old man. I directed the mercurial friction, and spiritus ætheris vitriolici. April 30th, the swelling was less, and his urine encreased. June 1st, the flow of urine was so constant, that he complained of it. The friction was interrupted. His legs now swelled, but the abdomen was nearly of its natural size. June 12th, every appearance of dropsy was removed, but he remained feeble. He was ordered tonic medicines, and was soon after dismissed cured.

HISTORY XLIII.

Mary Tattersall, aged twenty-three, was attacked by ascites, after being severely bruised in the abdomen, and both sides. She was

was prodigiously distended, and complained of violent pain in her left side, but her countenance was natural, and her strength pretty entire. Some of the common diuretics were given, without effect, and it became necessary to employ the operation, by which eighteen quarts of water were drawn off. When the swelling was thus reduced, the state of the viscera seemed to be alarming: there was great fulness and hardness in the region of the liver on the right, and of the spleen on the left side. I therefore judged it necessary to direct the mercurial friction, which was continued till her mouth was made very sore, when various diuretics were given, without encreasing her urine. She became again so much distended, that we had recourse to another puncture; seventeen quarts of water were now drawn off. On the diminution of the swelling, the liver felt smaller and softer. At a third tapping, seventeen quarts were again evacuated; at a fourth, ten quarts. Finding no relief from any method employed, she then left the house, and went to a distant part of the country.

HISTORY XLIV.

Valentine Ramsden, aged forty-seven, admitted June 20th, 1794, had ascites and anasarca to a very considerable degree. He was emaciated and weak, with a yellow suffusion over the whole skin; a considerable time before he became dropsical, he had sustained a severe injury on the right side, in the region of the liver, since which he had frequent pains in that place, sometimes shooting up to the right shoulder. He had a harassing cough, and copious spitting. After some ineffectual trials of cream of tartar and digitalis, I made him use the mercurial friction, and *spiritus ætheris vitriolici.* About the beginning of the course, the skin of one leg gave way, and discharged a great quantity of water. The friction was continued, till his mouth became very sore, with the effect of diminishing the swellings.* When it was necessary to omit

* At two different times, he threw up large quantities of water, which had a temporary effect in lessening his size.

the

the mercury, I put him on a course of digitalis, supporting his strength with wine, and occasionally opening his bowels with gamboge and calomel. He continued in a languishing state, and upon the healing of his mouth, the swellings appeared at a stand, and even seemed to encrease. I then omitted the digitalis, and ordered him a preparation of the bark, with tincture of cantharides, in the proportion of a drachm to eight ounces: to this was occasionally added a drachm of oxymel of squills. Under this course his urine encreased, and about the middle of December, his swellings were entirely removed, but he was reduced to the lowest degree of weakness. His leg still continued to discharge a mixture of pus and serum.

He died from mere debility, in the end of December.

HISTORY XLV.

William Edwards, aged thirty, was admitted Oct. 1792, with ascites and anasarca;

his face, and the backs of his hands were very much swelled. He took cream of tartar for some time, without effect; afterwards he took squills in substance, and swelled more. He then had draughts with gamboge and calomel, and the use of the latter was pushed, as the swelling went on rapidly, so as to affect his mouth in the course of a week. The spiritus ætheris vitriolici was then added to the course. On the 14th of November, the swellings were not decreased, but his mouth was still sore. I ordered him half a drachm of Dover's powder, at bed-time, which he rejected; however, he sweated considerably, and two days after, passed a good deal of water, with the effect of lessening the swellings. His cough now became troublesome, and he complained of general pains: he was ordered a dose of the diaphoretic mixture, (antimonial wine with laudanum) every night at bed-time. On the 23d Nov. the report is, " swellings almost gone." A pneumonie

pneumonic affection supervened, and carried him off.

BARK, WITH TINCTURE OF CANTHARIDES.

HISTORY XLVI.

Henry Kay, aged eleven years, after recovering from the scarlatina anginosa, became affected with general dropsy. He was ordered a mixture with bark, and tincture of cantharides, and recovered in the course of a month. There was reason to fear, at one period of his disorder, that effusion had happened in the brain, for he was seized with epileptic fits, to which he had never before been subject, and after the cessation of the fits appeared comatose. In this emergency, his temples were blistered.

HISTORY XLVII.

Evan Ellis, aged eight years, was seized with anasarca and ascites, after an attack of

the scarlatina anginosa. He took the bark mixture, with tincture of cantharides, and was cured in the space of three weeks.

HISTORY XLVIII.

James Shaw, aged six years, had ascites and anasarca, after the scarlatina anginosa. He recovered by the same method, in a few weeks.

HISTORY XLIX.

Mary Hulse, aged twenty-six, after a tedious, irregular fever, which had been attended with pneumonic, and sometimes with hysterical symptoms, became anasarcous. She took the bark mixture, with tincture of cantharides, and sometimes with the addition of some oxymel of squills. She recovered in a short time.

NICOTIANA.

HISTORY L.

Thomas Brickhill, aged forty-five, after a long series of pneumonic and dyspeptic complaints,

nplaints, became generally dropsical. m the degree of orthopnœa and cough ler which he laboured, there was even ion to suppose that effusion had taken ce in the chest. He was put upon a rse of cream of tartar, afterwards of talis, with occasional doses of gamboge jallap, without obtaining any relief. his swellings became very great, and his plaints extremely distressing, I ordered to use the tinctura nicotianæ in small s. This produced an immediate ense of urine. It was therefore pushed to dose of twenty drops, four times a-day. swellings now decreased very slowly, though he used tonics, his stomach was etimes unable to retain the full dose of incture; it was therefore varied, accordo circumstances. He persevered in the of the remedy for several months, till nplete cure was obtained.

GAMBOGE.

HISTORY LI.

J. Edwards, was admitted March 19th, 1792, ill of ascites and anasarca. He was directed to take five grains of gamboge, with two drachms of spiritus ætheris vitriolici, in a draught, twice or thrice a week, according to its operation. This composition acted as a gentle purgative, encreased his urine, and cured him in a few weeks.

HISTORY LII.

Ann Calvert, about thirty years of age, complained of great dyspnœa, dry cough, and pain of her breast. Respiration was stridulous, and her pulse frequent. Dec. 3, 1794, I directed her to lose ten ounces of blood, and to take the laxative pectoral electuary. On the 9th, the dyspnœa and pain, though easier, being still considerable, a blister was applied to her breast. Three days afterwards, the bleeding was repeated, and

d she was blistered between the shoulders. n the 9th of January, her feet and abdo- en began to swell, and her urine became ficient; she was then put on a course of eam of tartar, which was continued with- it relief, till the 27th of March. She was en ordered to lose nine ounces of blood, d to take the infusum digitalis, in en- easing doses. This was continued, to no irpose, till the 24th of April, when the urse was changed to the following bolus.

℞ Pulv. Scill. Arid. gr. iij.
Calomelan: gr. j.
Sapon. Hispan. gr. x.
Syrup. q. s. ut f. Bolus, omni nocte, hora somni, sumendus.

e was now so much disposed to costive- ss, that it was necessary to augment the lomel to four grains in each bolus. She as discouraged by experiencing no relief, d attended with no great regularity, till e 4th of September, when the boluses were scontinued, and she was put on a course of acher's tonic pills. On the 18th, the pills ere encreased to twenty-one a-day, but she

was so far from being relieved, that it was necessary to bleed her again, on the 29th. Oct. 9th, she was more swelled: she now took thirty of the tonic pills daily. On the 27th, I directed three grains of squills, ten grains of nutmeg, and half a grain of opium, to be taken every night, continuing the tonic pills by day. Nov. 6th, no progress being made, I changed her medicines again, and determined to try the effect of digitalis in substance. It was pushed to the extent of four grains a-day, with a pint of the cerevisia diuretica. On the 20th, the swellings were lessened, but in a few days she grew worse again. She then took six grains a-day, and persisted, without farther relief, till the 4th Dec. 1794. I then ordered her five grains of gamboge, with a drachm of spiritus ætheris nitrosi, every night in a draught, and a mixture with spiritus ætheris vitriolici, by day. This course kept her bowels gently open, encreased her urine, and relieved her breathing in a remarkable degree. Dec. 18th, the swellings were falling; but a hard frost renewed

ıewed the dyspnœa on the 22d. Jan. 5, r swellings were nearly gone, but the ;pnœa was still considerable.

HISTORY LIII.

Mary Hitchcock, aged forty-eight, had ıg been affected with general pains, inces- t cough, with great expectoration, flatu- ce, and spasmodic affections of the bowels. ese complaints terminated in ascites and ısarca. She took the tonic pills, with the ;asional interposition of the gamboge ıught, for a month; her swellings abated; t after another fortnight, they returned. e then took the decoction of golden-rod a fortnight, during which her swellings ıin lessened, her urine was much encreased, r appetite improved, and her bowels were pt moderately open by the decoction. stiveness and dysuria then came on, which re relieved by occasional doses of calomel; ; swellings remained stationary, and the lden-rod was continued till our stock of was exhausted. She was then put on a course

course of gamboge with cream of tartar, which completed the cure in about a month. This patient was much debilitated, and appeared to be phthisical, before the accession of the dropsy.

CREAM OF TARTAR, WITH DIGITALIS.

HISTORY LIV.

Thomas Bowker, an elderly man, accustomed to the abuse of spirituous liquors, came under my care for acute rheumatism, which was not accompanied with swellings of the joints. In the course of three weeks, the disease was converted to anasarca of the lower limbs, which encreased with such rapidity, that the integuments gave way on one foot, and a discharge of water took place. The abdomen was likewise beginning to fill. He now complained of a tormenting cough, and want of sleep. I ordered him cream of tartar, in the usual manner, every morning, and a grain of pulvis digitalis, with a grain

of

of opium, every night at bed-time. In a few days, his swellings were lessened, and all his complaints greatly relieved. During the severe frost of January and February, 1795, however, his strength sunk, and he died about the middle of February.

VIRGA AUREA.

HISTORY LV.

I have mentioned, in Mardley's case, the good effects of this plant, incidentally. The following is the only other instance of dropsy, in which I have been able to give it a fair trial.

Mary Brown, aged forty-nine, had been ill of ascites and anasarca for two months. After ineffectual attempts with some other diuretics, she was ordered the virga aurea in decoction, the plant being too fresh to be otherwise exhibited. In eight days, the abdomen decreased two inches, but constant sickness and vomiting came on, and it became

became necessary to omit the golden-rod. Imagining that there was an effort of the constitution to terminate the disease by vomiting, as it sometimes happens, I directed three grains of squills every night. Brisk vomiting was excited, her urine encreased, and the abdomen fell an inch and half. This was the last period of success. Incessant vomiting continued, without farther diminution of the swellings, in spite of opiates. The mercurial friction was attempted, but notwithstanding every exertion, she became comatose, and expired.

HISTORY LVI.

Alice Boardman, aged fifty, was ill of ascites; she had been tapped, and when I saw her was suffering so much pain from the distention of the abdomen, that it was necessary to repeat the operation. Nine quarts of water were drawn off. After a short, ineffectual trial of digitalis, I put her on a course of cream of tartar, by which her size was lessened, and continued to be reduced during a fortnight. It ceased at length

th to purge her, and gamboge was inter-
d. But finding, after a week's farther
, that the cream of tartar had lost its
ɔt, though given in encreased doses, I
ɔt it, and directed a course of calomel
ı squills. This seemed at first to have
e effect, but soon lost its power. The
c pills, and afterwards mercurial friction,
e employed with no better success. She
l, two months after admission.

ɔn reviewing the events of these cases,
preference I had determined to give the
ım of tartar, in dropsical diseases, appears
y justified. Of thirty-three cases in which
ıve used this remedy, since the publication
ıy former volume, twenty-four have been
ɛd, and two relieved: of the number
ɛd, two were cases of hydrothorax, fifteen
e the most dangerous complications of
psy, five were cases of ascites alone; the
of anasarca. I have purposely omitted
ɛral slight cases, and on the contrary,
ıave excluded other cases, where the
ninent hazard of the patient's life afforded

no

no time for the fair trial of medicines. The digitalis appears, in this set of cases, to great disadvantage indeed; but I confess, that my attention has been diverted from it, by my success with cream of tartar, a remedy liable to no bad consequences, from indiscretion either of the practitioner, or the patient. I am of opinion, however, that the employment of digitalis, as a secondary remedy, of which Bowkers's case is an example, may be attended with the best effects, and it cannot be denied, that sometimes, as in HIST. VIII, digitalis will succeed when other remedies have failed; but this happens with many other diuretics.

To arrive at more just conclusions, it will be proper to compare the result of all the cases of dropsy, mentioned in these volumes.

Cream of tartar has been given in forty-three cases; of these, thirty-three have recovered;*

* Three patients, marked as convalescents in the former volume, were completely cured.

nine

nine have died; three have been relieved.

Digitalis has been given in twenty-nine cases, of which eleven were cured; seven died; two were relieved; nine were not relieved.

The tonic pills have been given in twelve cases, of which six were cured; three died; two were greatly relieved; another received no benefit.

The bark, with tincture of cantharides, cured four cases of dropsy from conversion, and relieved Ramsden more than any other remedy had done.

The cases of Coxe, and Mary Smith, afford two rare instances of the beneficial effects of mercurial friction, joined with a diuretic, in dropsy of the ovarium.

The other remedies were given in too small a number of cases, to justify any general conclusion.

It

It appears evidently, from this comparison, that the greatest proportion of cures, out of an hundred and three cases, has been incontestably effected by cream of tartar.

That digitalis has produced a smaller number of cures, in proportion, than any other medicine employed.

That it is useful, in some habits, to exchange the employment of cream of tartar, for that of digitalis; or perhaps more frequently to unite their action, by exhibiting digitalis in the evening, when the purgative operation of cream of tartar, for the day, is exhausted.

That the employment, and especially the repetition of tapping, tends to accelerate the subsequent accumulation in ascites.

That in exhausted dropsical habits, where there is no permanent obstruction of the viscera, or where such an obstruction has been

en removed by other remedies, tonics y be advantageously joined with stimu-ng diuretics.

That the free, and long-continued use of rcury, sometimes brings on a depression of ngth, and irritability of the bowels, from ich it is difficult to recover the patient.

Lastly, that when diuretics act success-ly, they in most cases operate early. nce the advantage of exchanging diu-ics, at the beginning of the disease. It pears, likewise, from some of these cases, t the employment of a diuretic, which d failed at the commencement, may be umed at a subsequent period of the dis-der, with success.*

The power of cream of tartar, in curing drothorax, is completely established, by o cases in this volume, those of Bradshaw d Newton, (HIST. I. and VII,) added to

* Hist. xx, of this volume.

those of Farrer, Bayley, and Monk, in the former. Bradshaw relapsed twice, and Monk once, but both were cured by repeating their medicines. My observations thus support the opinion, delivered by some judicious authors, that hydrothorax alone is not an intractable species of dropsy.

In HIST. XXIII, of this volume, a remarkable instance appears of the hydragogue power of cream of tartar, even when it exerted no other sensible effect on the system.

The greatest inconvenience which I have experienced, in using this medicine, is, that in some habits it soon loses its purgative effect, and with that its hydragogue power. It then becomes necessary to give it in doses so bulky, that they are apt to offend the stomach. This might be avoided, by quickening it occasionally by the addition of a little gamboge. Formerly, it was supposed that the occurrence of a diarrhœa checked the flow of urine; in the action of cream of tartar, I have had frequent proofs of the fallacy

acy of this remark. The patients themes have often observed, that the swellings ted, and the urine flowed more largely; hey were more briskly purged by that ıedy. Even digitalis sometimes purges, ing a successful exhibition. In the case Dewrden, (vol. 1.) and in another, of ch I have preserved no other particulars, action of digitalis supported a gentle rhœa, through the whole progress of cure.

t appears, from HIST. XXXVIII, of this ıme, that when ascites and anasarca are ıplicated, in debilitated habits, the anaa sometimes gains upon the trunk of body, while the ascites is lessening by ver remedies. From the same case, and HIST. XVI, it also appears, that high, y swellings, on the backs of the hands, dangerous signs, in such complications.

lie golden-rod, anciently of great fame ephritic and dropsical disorders, operates, ıe dose of half a drachm of the dried

powder, given three times a-day, as a gentle purgative, but does not prove very diuretic (HIST. XX, XLVIII, and LV.). I may be allowed to mention here, that I have used it in several nephritic cases with success, in that dose. It is much more mucilaginous than the uva ursi, and is an agreeable bitter, with little or no astringency. BARCLAY has given a description of this plant in his *Satyricon*, which proves, that if botanical Latin is sometimes barbarous, or inelegant, the fault does not arise from the nature of the subject.

" Hæc lanceatis foliis, piloque ita brevi,
" ut pene curiosos oculos fallat, crenis deni-
" que tenuibus, et sæpe in obtusam speciem
" oras secantibus, mediocriter assurgit. Ra-
" dix caulisque lignea, subtiliorem succum
" in herbam transferunt. Planta ad inge-
" nium terræ nunc cubitalis, plerumque
" eminentior; insigne fastigium floribus ad
" examen turgentibus cingit, & VIRGÆ
" AUREÆ sortita est nomen, sive quod aureæ
" ac pene divinæ virtutis est, sive quod
" præstantis

"præstantis metalli dolorem exigui floris "venustas æmulatur. Cæterum contusum "in renibus calculum in innoxium pulverem "solvit. Non in latere, non in vesica dolor: "adeo ut tam facili remedio pudeat calculum "timuisse."—This eulogium, it must be owned, is a little rhetorical. The virga aurea is, indeed, an useful remedy in nephritis, but not more so than the uva ursi, or perhaps than many other bitters. I have always used it without opium.

In HIST. XLII, the diuretic effect of mercurial friction, joined with spiritus ætheris vitriolici, was so powerful, as to produce a constant flow, amounting to an incontinence of urine, in a very old, and much enfeebled subject. The inconvenience was, in that case, removed by tonics: I have found it, in a smaller degree, produced by other combinations of diuretics, in old persons, but I do not remember to have seen it troublesome, excepting in cases where mercury had been freely used.

Upon the whole, I think, we may conclude, that slow and gentle methods of treatment ought to be instituted, in all cases of dropsy in which the general habit is affected, either by visceral obstructions, or by the length of the disease. That from the junction of cream of tartar with digitalis, interposing purgatives occasionally, much may be hoped; and that mercury should be considered as a resource, only after the failure of milder remedies, which produce a less sudden, and less permanent impression on the constitution.

The additional experience of thirteen years has confirmed the opinions contained in these pages. I still find cream of tartar a sure and powerful hydragogue; while digitalis occasionally operates with astonishing success as a diuretic, but cannot be depended on in this respect or as a hydragogue. Some particular occurrences, however, have led me to alter my practice in dropsy, and I think, with considerable advantage.

dvantage. In 1795, I had tried many of he usual diuretics in a case of general ropsy, without success. A large increase f urine was suddenly produced by a far- ago of liquid diuretics, which was clandes- nely administered, and the prescription was fterwards shewn to me. The formula ppeared ridiculous; but its efficacy led ne to consider, that we are apt to simplify ur prescriptions too much, and that we nay sometimes lose, in this manner, the enefit of fortunate combinations. A case oon afterwards occurred, of anasarca, ascites, nd hydrothorax in conjunction, which vas not relieved by the usual methods. The atient, suffering under a dreadful dyspnœa, ntreated that some new plan might be tried, nd I determined to order a combination of iquid diuretics. The immediate success vas beyond my hopes; a large flow of rine was promoted, and the patient's breath- ng was, for a time, completely relieved, hough the ultimate event was unfavourable. ince that period, I have used this formula,

under the title of diuretic drops, generally in the following manner:

℞ Oxymel. Colchic.
---.----- Scill.
Tinctur. Nicotian.
Sp. Æther. Nitros. āā p. æ. Misce. Capiat cochleare parvulum, ex Aquæ pauxillo, quater in die.

When an additional stimulus is wanted, in debilitated habits, about ten drops of tinctur. cantharid. are added to each dose.

The usual quantity of cream of tartar is given early every morning, and the patient begins to use the diuretic drops, in the forenoon. In very costive habits, it is sometimes advantageous to add a portion of syrup of buckthorn to the farrago, and I frequently join the tincture of digitalis to it, in such doses as the patient can easily bear. When there is imminent danger of suffocation, from the quantity of water effused, in hydrothorax, I have frequently given immediate relief, by the following purgative draught.

℞ Cambog. gr. iv.
Sp. Æther. Nitros. ʒj.
Tinctur. Senn. ʒij.
Syrup. Rhamni.
Aq. Menth. āā ʒfs. Misce.

A draught of this kind may be given twice or thrice a-week, in such cases, while the cream of tartar, and diuretic drops, are employed in the intermediate days.

By this plan of treatment, I have succeeded in several cases, where the prospect of a cure was very unfavourable at the commencement, and I believe that the action of the kidnies may be very generally excited in this manner.

After long and extensive experience of the qualities of camboge, I can recommend it as one of the gentlest, most certain, and least nauseous laxatives in the Materia Medica. Being nearly free from either smell or taste, it is particularly well adapted to the management of children, with whom its anthelmintic power is likewise valuable.

A very

A very commodious form of exhibiting it, is a solution in distilled water, in the proportion of half a grain of gamboge, to half an ounce of water. A table spoonful may be given to an adult, every hour, till it operates. A tea-spoonful of this solution, given in the same way, is a dose for a child, under twelve years of age. When given in this manner, doses of seven or eight grains have been found necessary to move the bowels, and it has proved strongly diuretic.

Simple hydrothorax is very much under the command of cream of tartar, the gentle operation of which renders its continued use perfectly safe for a long period.

I shall just add, that in some habits, the combination of tincture of squills with syrup of buckthorn, proves very powerfully diuretic.

I have not formed a high opinion of tincture of Lytta, as a diuretic. I have repeatedly

repeatedly found that it stimulates the neck of the bladder violently, and produces incessant efforts to part with urine, without actually increasing the quantity of the secretion. It sometimes appears to succeed, in combination with other diuretics.

I have been induced, by some recent cases, to adopt the early use of the extract of elaterium, in dropsy, and I have found it a remedy of the first class. From the uncertainty and roughness of its operation, this valuable medicine has been too little employed. The effects of very small doses, such as a quarter of a grain are sometimes very distressing, especially the nausea, and I have seen it produce severe purging in this dose. But it is not merely a powerful hydragogue. It appears to stimulate the absorbent vessels in a particular manner, from the rapid removal of serous effusions which characterizes its action. I shall briefly state some of the cases, in which I have used it. An elderly gentleman

gentleman had laboured under general dropsy for several months; the symptoms of effusion in the chest were peculiarly distressing. In spite of all the usual remedies the swellings continued to increase, till it was thought advisable to tap the abdomen, merely to prevent suffocation. In this desperate situation, I thought it right to try the extract of elaterium, before the operation. It was given in half-grain doses, and produced an immediate large increase of water, very liquid stools, and an abatement of the dyspnœa and cough. We pursued this plan steadily for several weeks, in the course of which he was completely emptied of the effused fluid: his pulse became strong and regular; and he was able to walk about his garden. He unfortunately went to the distance of some miles, to dine with a friend, on one of the stormy days in the beginning of June, 1809, and caught a severe cold, which brought on chronic inflammation of the pleura and occasioned his death.

About

About the same time, I attended a lady, upwards of eighty years old, who had most decided symptoms of hydrothorax; she had also ascites and anasarca. She had been long unable to lie down in bed. After using the extract of elaterium, in half-grain doses, for a short time, her breathing was relieved, and she was able to enjoy comfortable sleep. Her swellings were also much reduced, and though not cured, she was enabled to visit her friends, and her life was evidently prolonged, as well as rendered more comfortable.

In two other cases of hydrothorax, one with ascites, the other un-complicated, perfect cures were obtained, after every other method had been unsuccessfully employed.

In consequence of the severe action of this medicine on some habits, I now begin with the dose of the sixteenth part

of

of a grain only. This is repeated, according to the effect produced on the stomach, till two, three or four grains a-day are given. The quantity of water brought off by stool surprizes, and sometimes alarms the patient. I have known two quarts of liquid passed by stool, in the course of two or three hours.

But the relief of the symptoms of effusion has always appeared to me more speedy and complete from this, than from any other medicine, in dropsical complaints.

TABLE,

	Name.	*Age.*	*Species of Dropsy.*	*Remedies.*	*Event.*
1	Jos. Bradshaw	47	Hydrothorax	Cream of Tartar	Cured.
2	Magdalen Cross	74	Anasarca	Cream of Tartar	Cured.
3	John Beswick	58	Anasarca	Cream of Tartar	Cured.
4	Joseph Wilcock	37	Anasarca	Cream of Tartar	Cured.
5	John Clough	50	Anasarca	Cream of Tartar	Cured.
6	John Birch	25	Ascites and Anasarca	Cream of Tartar	Cured.
7	Mary Newton	35	Hydrothorax	Cream of Tartar	Cured.
8	A. F.	60	Ascites, Anasarca, and Hydrothorax	First Course, Cream of Tartar	Relieved.
				Second Course, Digitalis	Cured.
9	Eliz. Wells	58	Ascites and Anasarca	Cream of Tartar	Died.
10	Mary Williams	2	Ascites and Anasarca	Cream of Tartar	Cured.
11	Ann Lees	30	Ascites	Cream of Tartar	Cured.
12	John Roberts	50	Ascites and Anasarca	Cream of Tartar	Cured.
13	John Campain	25	Anasarca	Cream of Tartar	Cured.
14	John Taylor	30	Ascites and Anasarca	Cream of Tartar	Cured.
15	Mary Leech	48	Ascites and Anasarca	First Course, Mercurial Friction, with Spiritus Ætheris Vitriolici	Not relieved.
				Second Course, Gamboge, with Cream of Tartar	Died, after the removal of the swellings.

	Name.	*Age.*	*Species of Dropsy.*	*Remedies.*	*Event.*
16	Frances Clough	74	Ascites, Anasarca, and Hydrothorax	Cream of Tartar, Gamboge, with Sp. Ætheris Nitrosi	Died,
17	Mary Thompson	30	Ascites	Cream of Tartar	Cured.
18	Mary Smith	42	Ascites and Hydrops Ovarii	First Course, Mercurial Frictions, with Sp. Æther. Vitriolici	Hydr. Ovarii relieved. Ascites, not relieved.
				Second Course, Cream of Tartar,	Cured.
19	Peter Morgan		Ascites and Anasarca	Cream of Tartar	Relieved.
20	John Mardley	60	Ascites and Anasarca	First Course, Cream of Tartar,	Not relieved.
				Second Course, Virga Aurea	Relieved.
				Third Course, C. of Tartar again	Cured.
21	Sarah Hughes	50	Ascites	Cream of Tartar	Cured.
22	George Musgrave	30	Ascites and Anasarca	Cream of Tartar	Cured.
				Relapsed, Gamboge	Died.
23	Mr. T.	50	Ascites and Anasarca	Cream of Tartar	Cured.
24	William Bradley	8	Ascites and Anasarca	Cream of Tartar	Cured.
25	George Adams	1¾	Ascites	Cream of Tartar	Died.
26	Ruth Ratcliff	25	Ascites and Anasarca	Cream of Tartar	Cured.
27	John Wood	45	Ascites and Anasarca	Cream of Tartar	Cured.
28	Wm. Winterburn	58	Ascites and Anasarca	Cream of Tartar	Cured.
29	Mary Byrom	43	Ascites	First Course, Cream of Tartar	Relieved.
				Second Course, Tonic Pills	Cured.

	Name.	Age.	Species of Dropsy.	Remedies.	Event.
30	Mary Bury	9	Ascites	Cream of Tartar	Died.
31	Martha Yates	23	Ascites and Anasarca	Cm. of Tart. Mercury. Puncture	Died.
32	Robert Berry	45	Anasarca and Ascites	Cream of Tartar	Cured.
33	Ellen Green	18	Ascites and Anasarca	Cream of Tartar	Cured.
34	Sarah Duxbury	18	Anasarca	Digitalis	Cured.
35	Ann Brown	69	Ascites and Anasarca	Digitalis	Died.
36	Peter Lomax	21	Ascites. Dilated Heart	Digitalis	Died.
37	John Jones	48	Ascites and Anasarca	Digitalis	Died.
38	William Exell		Ascites and Anasarca	Tonic Pills	Cured.
39	Henry Robinson	63	Ascites and Anasarca	First Course, Digitalis Second Course, Tonic Pills	Died.
40	Mary Adshead		Ascites	First Course, Cream of Tartar Second Course, Tonic Pills	Not relieved.
41	Ann Hassel	7	Ascites	Mercurial Friction and Sp. Æther Vitriolici	Cured.
42	John Kearsley	64	Ascites	Mercurial Friction and Sp. Æther Vitriolici	Cured.
43	Mary Tattersall	23	Ascites	Mercurial Friction. Puncture	Not relieved.
44	Valentine Ramsden	47	Ascites and Anasarca	Mercurial Friction. Digitalis. Bark with Tinct. Cantharid,	Died, after the removal of the swellings.
45	William Edwards		Ascites and Anasarca	Calomel. Dover's Powder	Died, after the removal of the swellings.

	Name.	*Age.*	*Species of Dropsy.*	*Remedies.*	*Event.*
46	Henry Kay	11	Ascites and Anasarca	Bark with Tinctur. Cantharid.	Cured.
47	Evan Ellis	8	Ascites and Anasarca	Bark with Tinct. Canthar.	Cured.
48	James Shaw	6	Ascites and Anasarca	Bark with Tinct. Canthar.	Cured.
49	Mary Hulse	30	Anasarca	Bark with Tinct. Canthar.	Cured.
50	Thomas Brickhill	45	Ascites, Anasarca, and Hydrothorax	Tinctura Nicotianæ	Cured.
51	J. Edwards		Ascites and Anasarca	Gamboge with Sp. Æth.	Cured.
52	Ann Calvert	30	Ascites, Anasarca, and Hydrothorax	First Course, Cream of Tartar Sec. Course, Infusion, Digit. Third Course, Cal. with Squills Fourth Course, Tonic Pills Fifth Course, Digitalis in Subst. Sixth Course, Gamboge with Sp. Æther. Vitriol.	Not relieved. Relieved.
53	Mary Hitchcock	48	Ascites and Anasarca	First Course, Tonic Pills. Second Course, Virga Aurea Third Course, Gamboge with Cream of Tartar	Not relieved. Relieved. Cured.
54	Thomas Bowker	56	Anasarca	Digitalis and Cream of Tartar	Died.
55	Mary Brown	49	Ascites and Anasarca	Virga Aurea. Squills	Died.
56	Alice Boardman	50	Ascites	Digitalis. Cream of Tartar. Gamboge. Squills. Tonic Pills. Mercurial Friction	Died.

OF THE

PREVENTION OF FEVERS

in

GREAT TOWNS.

——— semper novis
Deflenda lacrymis funera, ac populi struem.
Senec. Œdip.

OF THE PREVENTION OF FEVERS IN GREAT TOWNS.

THE prevalence of fevers, in large manufacturing towns, has appeared to me, from personal observation, to be encreased by several causes, the action of which might be weakened by proper care. To these causes I endeavoured to direct the public attention in my last volume; and as my observations chiefly referred to this town, I pointed out the dangerous situation of the poor, to the more opulent inhabitants, in a separate publication, which I shall insert below.

Address to the Committee of Police.

" Among the objects which engage the attention of this Committee, there can be none more interesting, than the prevention of epidemic diseases among the poor, as far

as it can be accomplished by attending to the most hazardous circumstances of their situation, I hope I shall therefore be excused, for offering a few observations, on the means of opposing the production and progress of infectious fevers, in cellars and lodging-houses, where they reduce great numbers of the industrious poor to extreme distress, and often nearly destroy whole families. In doing this, I shall confine myself to the remarks which have occurred to me, in the discharge of my office of Physician to the Infirmary, as local observations only can be interesting to the Committee."

"1. In some parts of the town, cellars are so damp as to be unfit for habitations; such places should be reported to the Commissioners, by whom proper representations may be made to the owners, that the cellars may be appropriated to other purposes. I have known several industrious families lost to the community, by a short residence in damp cellars."

"2. The

"2. The poor often suffer much, from the shattered state of cellar windows. This is a trifling circumstance in appearance, but the consequences to the inhabitants are of the most serious kind. Fevers are among the most usual effects; and I have often met with consumptions which could be traced to this cause. Inveterate rheumatic complaints, which disable the sufferer from every kind of employment, are often produced in the same manner. This source of disease may be expected to admit of easy removal, for it cannot be the interest of the proprietor of a cellar to have his tenants constantly sick."

"I have seen large apertures in the walls of a lodging-house, in consequence of which, a patient of mine contracted a consumption; the owner was applied to, in a cold, rainy season, to close the openings, so as to mitigate the patient's sufferings from the severity of the weather; but in vain."

[A great proportion of the aged poor die of pneumonic complaints and dropsy.]

"3. I am persuaded, that mischief frequently arises, from a practice common in many narrow back streets, of leaving the vaults of the privies open. I have often observed, that fevers prevail most, in houses exposed to the effluvia of dunghills in such situations."

[During the late epidemic, it was observed that the fever prevailed most, in streets which were not drained, or in which dunghills were suffered to accumulate, or where the blood and garbage from slaughter-houses were allowed to stagnate. I do not mean to assert, that such nuisances produce the disease, but they appear to assist its progress, and to operate as remote causes of fever, in whatever manner pathologists may choose to explain their action.]

"As an example of the injurious effect of these circumstances, I beg leave to point out one family, of the name of Turner, in a dark cellar behind Jackson's row. They have been almost constantly patients of the infirmary

infirmary for three years past, on account of disorders owing to their miserable dwelling. There are other instances of the same kind in Bootle-street; in one house of the latter street, most of the inhabitants are paralytic, in consequence of their situation in a blind alley, which excludes them from light and air. Consumptions, distortion, and idiocy, are common in such recesses."

"4. In Blakely-street, under No. 4, is a range of cellars, let out to lodgers, which threatens to become a nursery of diseases. They consist of four rooms, communicating with each other, of which the two centre rooms are completely dark; the fourth is very ill lighted, and chiefly ventilated through the others. They contain from four to five beds in each, and are already extremely dirty."

[A large house, in an airy situation, the remains of an abortive design for a poor-house, has been filled with fever-patients, by

by the admission of fresh air being obstructed. A considerable number of poor families had been lodged in it, for very trifling rents; the building had never been completed, and quickly went to decay. Many of the windows, and the principal entrance were built up, and the fever then became universal in it.]

"5. The lodging-houses, near the extremities of the town, produce many fevers, not only by want of cleanliness and air, but by receiving the most offensive objects into beds, which never seem to undergo any attempt towards cleaning them, from their first purchase till they rot under their tenants. The most fatal consequences have resulted from a nest of lodging-houses in Brooks's-entry, near the bottom of Long-mill-gate, a place which I beg leave to recommend to the serious attention of the committee. In those houses, a very dangerous fever constantly subsists, and has subsisted for a considerable number of years. I have

I have known nine patients confined in fevers at the same time, in one of those houses, and crammed into three small, dirty rooms, without the regular attendance of any friend, or of a nurse. Four of these poor creatures died, absolutely from want of the common offices of humanity, and neglect in the administration of their medicines. In some other houses in the same nest, I have known a whole swarm of lodgers exposed to infection by the introduction of a fever-patient, yet so far infatuated, as to refuse to quit the house, till all of them have been seized with the disorder. It must be observed, that persons newly arrived from the country are most liable to suffer from these causes, and as they are often taken ill within a few days after entering an infected house, there arises a double injury to the town, from the loss of their labour, and the expence of supporting them in their illness. A great number of the home-patients of the Infirmary are of this description. The horror of those houses cannot

cannot easily be described; a lodger fresh from the country often lies down in a bed, filled with infection by its last tenant, or from which the corpse of a victim to fever has only been removed a few hours before."

"Another set of lodging-houses constantly infected, is known by the name of the Five Houses in Newton-street. The continuance of fevers among them seems to arise from their being over crouded, and very dirty."

"6. The best method, perhaps, of giving an effectual check to these evils, would be to oblige all persons letting lodgings to take a licence, and to limit them in the number of their lodgers. By the terms of the licence, they might also be obliged to white-wash their houses twice a year, which is a powerful method of preventing infection. When a fever appears in a house full of lodgers, all who are uninfected should be immediately removed to a clean house, and their clothes should

should be washed and scoured. When the fever has ceased, the bed-clothes and curtains of the infected room ought to be scoured, or otherwise cleaned, and a fresh application of white-washing should be made. With proper care, indeed, the worst kind of fever may be confined to the patient's room, without danger to the rest of the family; but no dependance can be placed on the conduct of the persons to whom I allude."

"When the sick are destitute of beds, they should be supplied by the town. It is obvious, that fevers, slight in their commencement, must be greatly aggravated, and must often become dangerous, when the patient lies on a few rags, in a cold garret, or damp cellar."

[When the late epidemic was at its height, a subscription was begun for supplying the sick poor with beds, clothing, nurses, and food. With much benefit, considerable abuses resulted from this plan, great numbers

bers of the poor applying to the Infirmary, under pretence of sickness, for the sole purpose of profiting by the subscription. It was therefore thought more adviseable to promote subscriptions for the relief of the poor in general; as exposure to hunger and cold had always preceded the fever, in those families where it proved most general, and most obstinate.]

"7. This plan would require the appointment of Inspectors of lodging-houses, whose business it would be to visit houses which should be reported to them as infected, either by the neighbours, or by any medical gentleman, under whose observation such places should fall. They should be empowered to take proper steps for checking infection wherever it appears, and occasional enquiries might be made, respecting the compliance of persons letting lodgings with the condition of their licences. This would answer a very desirable purpose respecting the police, independent of the advantages proposed regarding health.

health. The keepers of the lodging-houses might be required to give an account of the name and occupation of every lodger whom they receive, and to become responsible, to a certain degree, for the truth of these reports. By this means, a constant check might be maintained on houses, which at present are the refuge of the most profligate and dangerous part of society."

"8. There is a practice very common in small new buildings, which ought to be discouraged; that of putting up fixed casements. Some part, if not the whole of the window should always be moveable, especially where there is but a single window in the room. From the want of such a regulation, I have been often obliged to order several panes to be taken out of the window of a fever-room, to obtain a tolerable degree of ventilation."

"9. It is sometimes difficult to prevent the master of a lodging-house from turning a patient

a patient out of doors, in the height of a fever, when he apprehends that his other lodgers will desert him. Some interposition of authority should take place, in such cases, both for the sake of humanity, and to prevent the unfortunate patient from spreading the disease into a fresh house."

"10. When a house is infected in every room, a nurse should be provided, on whom dependance can be placed, to prevent unnecessary visits from neighbours and acquaintances. About two years ago, a fever of the worst kind was carried from a lodging-house, in Salford, where it had attacked all the inhabitants, to another in Milk-street, near the Infirmary, where it seized several persons, in consequence of a thoughtless visit, made by an acquaintance lodging in Milk-street. In this way, fevers are sometimes introduced among the servants in opulent families."

[Another common mode of propagating contagion,

contagion, is the sale of infected clothes, from houses where the fever has run through all the inhabitants. The Committee for the general relief of the poor, have very properly directed their visitors, to see all infected rags burnt, when they supply poor families with fresh clothing.]

"11. The prevalence of fevers, among persons employed in cotton mills, might be lessened, by an attention on the part of the overseers, to the following circumstances, besides a due regard to ventilation. Personal cleanliness should be strongly recommended and encouraged; and the parents of children so employed, should be enjoined to wash them every morning and evening, to keep their shoes and stockings in good condition, and above all never to send them to work early in the morning without giving them food."

"It is greatly to be wished, that the custom of working all night could be avoided.

The continuance of such a practice cannot be consistent with health, and I am glad to find that it does not prevail universally."

"Great benefit would be derived, in such situations, from cold bathing, if the poor could be induced to use it once or twice a week, during the whole year. It would counteract the bad consequences of the want of clothing, on the change of which health is known so much to depend; and it would lessen the frequency of rheumatic complaints, by inuring those whose situations expose them the most, to the vicissitudes of the seasons, or sudden alterations of temperature. This would be best done by furnishing public baths for their use."

"Many other circumstances might be pointed out, which are of great importance in preserving the health of the poor, but I am afraid of intruding too much on the patience of the Committee. As the circumstances to which I have adverted, have been impressed

impressed on my mind by repeated, actual observations, and as the evils they produce are of the most serious and alarming nature, I should have deemed myself wanting in my duty to the public, if I had omitted to lay these reflections before the gentlemen of the Committee, at a time when they are occupied with plans of public utility. If their attention should be thus excited, to a subject so important to the general good, my design will be fully answered."

A committee was at that time appointed, for regulating the police of the towns of Manchester and Salford, and as they saw the magnitude of the evils displayed, and entered with zeal into my views for their alleviation, there was reason to hope that beneficial measures would be pursued. Private interests, however, prevailed over those of the public, and nothing effectual was done. The years 1792 and 1793 passed over, without any extraordinary encrease of fever-patients, though the noxious effects of the nuisances I had mentioned were always

apparent. But in the summer and autumn of 1794, the usual epidemic fever became very prevalent among the poor, in some quarters of the town, particularly after a bilious cholic had raged among all ranks of people. To the ordinary causes of fever were now added, the influence of a burning summer, succeeded by very wet, but yet warm weather, and the want of clothing, and failure even of necessary food, in many families, occasioned by the decay of trade, and the great numbers of workmen enlisted in the army, who left their children to the slender support which could be earned by the labour of the mother. In many instances, I have found that for three or four days before the appearance of typhus in a family, consisting of several children, they had subsisted on little more than cold water. Many of those persons were strangers, and not entitled to, or unable to obtain the pittance afforded by the poor-laws. Even when that relief could be procured, it was very inadequate to the wants of a numerous family. Those who are accustomed to affluence

fluence and ease, would shudder at the idea of supporting a sickly mother, encumbered with the charge of four or five infants, on an income of two shillings a week; this, however, is the parochial allowance in cases of illness. The pain and horror of these situations were often greatly aggravated, by the confinement of the patients in small, dark cellars, where five or six miserable creatures sometimes lay ill together, in the hottest weather; where the dead remained for whole days by the side of the survivors, and where delirium and insensibility were states to be envied.

In the months of November and December, an hundred and fifty-six patients in fevers sometimes applied weekly at the Infirmary, to be visited at their own houses, and though a severe frost took place in the end of December, yet the number of patients was not diminished towards the middle of January, 1795.

The influence of hard frost in abating fevers, cannot be immediately perceived. Many patients must have received the contagion, and others must feel the first symptoms of the disease, about the commencement of the frost: in these persons the disease must run its course. It is in the period of a fortnight or more, that the effect of the cold weather appears. This consideration accounts for the seemingly singular fact, that the epidemic fever of Philadelphia ceased in moderately warm weather.

The symptoms of this disease were nearly similar to those of the epidemic fever of 1790, 1791, which I have described elsewhere. In cases where early assistance was sought, and medicines and necessaries were supplied, this fever seldom proved fatal. During the continuance of the hot weather, indeed, I met with some cases, in which the type of typhus was assumed, as early as the fourth or fifth day, and a comatose state came on, which terminated in death.

This

This fever did not seem to be more contagious in its nature, than the cases which had been always occurring, though in smaller number, since the last epidemic. In 1792, I had two patients ill of typhus, in an infected lodging-house. I desired that they might be washed with cold water, and a healthy, ruddy young woman of the neighbourhood undertook the office. Though apparently in perfect health before she went into the sick chamber, she complained of the intolerable smell of the patients, and said she felt a head-ach, when she came down stairs. She sickened, and died of the fever, in three days.

About the same time, I met with a remarkable instance, of the case with which contagion may be confined within certain bounds. A house, in a very confined situation, had been infected, during several years, in three of the rooms, and at one time, when the whole family was ill, four persons died from want of the common offices of a nurse. During all this time, an

elderly couple, who lodged in the fourth room, separated from the infected only by the narrow staircase of the house, preserved themselves from the disorder, merely by avoiding all communication with the rest of the family.

Conversions to dropsy were much more common than usual, in this epidemic.

I met with several instances of the conversion of typhus to the scarlatina anginosa, and the contrary, in autumn, 1794. In such cases, dropsy supervened more early, and was more obstinate than usual.

As I had touched very slightly on the unhealthiness of cotton-mills, in the observations addressed to the Committee of Police, I shall add a few remarks on that subject.

Whether the infection of fever is ever generated in cotton-mills, has been disputed. Whatever may be said on that subject, there can be no doubt, that cotton-mills, as they

are

are frequently managed at present, contribute powerfully to preserve and extend contagion. A great number of dirty people are confined together, during the best part of the day, in rooms, much warmer than the external atmosphere, into which little fresh air is admitted, and where the floors and the machinery are sometimes filthy beyond belief. The convalescents from infectious fevers are also admitted to resume their employment, without the use of any method, for purifying their clothes or persons from contagion: even those who retain their health, in infected houses, often carry a quantity of infection, attached to their clothes, into the working-rooms. The practice of working all night, still continued in some cotton-mills, must be added as a cause of fever. During the night, the persons employed are more solicitous to exclude the external air, while the atmosphere of the rooms is farther vitiated, by the number of candles. Watching is particularly severe, and prejudicial to children, at the early age when they begin to be employed

employed in these works, nor is their repose rendered sufficiently comfortable. When their night-task is finished, they commonly lie down in beds, which have been just quitted by other children who labour during the day. This is, alone, a very noxious practice. But such is the natural appetite for fresh air, that many of these little creatures prefer rambling in the fields, during part of the time allotted to them for sleep.

I am happy to observe, that this cruel and injurious custom is now declining, and that in some extensive cotton-mills, it is entirely abolished; the proprietors justly conceiving, that there are sacrifices of health and life, for which no pecuniary advantage can compensate.

It must be observed, that the disadvantages of such works, result from inattention to cleanliness and ventilation, for there can be no reason why a cotton-mill should be particularly unhealthy; on the contrary, I am satisfied, from the experience of a friend, who

who has directed a large one for several years, that by frequently washing the floors and frames, and by admitting fresh air, a cotton-mill may be rendered as healthy as a private house.

There is, undoubtedly, considerable difficulty in preserving large rooms in a healthy state, where many persons are constantly confined, as we experience too much in hospitals. In cotton-mills, where they continue to work during the night, therefore, it can scarcely be expected, that the health of the labourers should be completely secured; but when the mill is empty, during the whole night, an opportunity is afforded for complete ventilation, and in such cases, the labourers, when kept tolerably clean, are perhaps less exposed to disease, than in their own habitations.

When we examine the history of some epidemics, of the plague of Marseilles, for example, or the late fever in Philadelphia, it appears that those disorders have grown by neglect,

neglect, and have disappeared before vigilance. While the ravages of contagion are confined to the more unprotected class of the poor, the opulent and the busy, far removed from the sight of misery, little suspect the horrors with which they are surrounded. Their attention, when at length rouzed, by the approach of danger to their own threshold, often proves prejudicial at first, because is rises to alarm and panic. It is then, that fear, overpowering every principle, and every affection, prepares new dangers by the extravagant selfishness of its exertions.

The sick are sequestered from every means of relief, the dead are allowed to putrify in heaps, or are scarcely covered from the sight of the survivors, while the suspicion of infection, equivalent to a sentence of death, pursues every one, who has paid the coldest offices of charity to the sufferers. Under this dominion of inhumanity, destruction is carried to its utmost height, till the very extremity of danger excites

excites men to counteract it. From the moment, that the sick are treated with kindness, instead of being avoided with horror; that houses are purified, instead of being shut up; and that the dead are interred at a sufficient depth, the pestilence, of whatever nature, begins to decline, and then gradually ceases. Less alarming epidemics may, therefore, be expected to admit of still speedier alleviation, when they do not depend upon imported contagion, but arise from such local wants and grievances, as have been specified in the preceding observations. Indeed I am persuaded, that the institution of a committee of health, in this, and similar towns, would be a measure of the greatest public utility, and well deserving the attention of the legislature, as the probable means of preserving many industrious families from destruction. If nothing more were done by such an institution, than to lighten the condition of the poor in its most urgent pressure, much good must still arise from it; but if ever the question of public health should be fully investigated

vestigated, more important operations would appear necessary than those which I have referred to.

It is obvious, that much sickness, among the poor, arises from errors, or defects in their lodgings and clothing. These mischiefs may be partially corrected, by occasional subscriptions, and the interference of the opulent in times of alarm and danger, but as soon as the hand of charity is withdrawn, the same evils recur.

The only method by which the poor could be provided with clean and healthy habitations, is the erection of public lodging-houses, on the plan of barracks, or caravanseras. Great numbers of the labouring poor, who are tempted, by the prospect of large wages, to flock into the principal manufacturing towns, become diseased, by getting into dirty, infected houses on their arrival. Others, from want of connections, waste their small stock of money, without procuring employment, and sink under the pressure

pressure of want and despair. If those unfortunate persons had access, on their first arrival, to a public institution, where they could be lodged in clean, airy rooms, and where their residence would quickly become known, they would be saved, at once, from the danger of disease, and the hazard of ruinous idleness. The number of such victims, sacrificed to the present abuses, is incredible. Encouraged by the committee, a nicer regard to cleanliness might be introduced among the poor, they might, particularly, be induced to use the warm or cold bath, according to circumstances, a practice that would prevent many fevers, rheumatic and cutaneous disorders, and would promote an alertness and cheerfulness of mind, which would even improve them as workmen.

Other advantages, of a still more important nature, might be expected from such an institution. One of the strongest temptations to brutal debauchery, is the consciousness of being unnoticed, or contemned. In manufacturing towns, where the

the youth of both sexes are early able to support themselves by their own labour, and where the nature of their employment produces a constant intercourse between them, licentiousness of manners is carried to the highest pitch. This may be fairly imputed, in great measure, to the unchecked, and disregarded state, in which persons of this class find themselves. For, whatever may be the practice of philosophers, men in general are little disposed to embrace virtue for her own sake, but in obeying her dictates, are apt to keep even her temporal rewards in view. Solitary self-denial, among the labouring poor, is commonly produced, I fear, by avarice. I am far from asserting, that the poor have no virtues; I am convinced that they possess many, by witnessing their conduct every day, in the most trying situations. But I apprehend, that by placing them in a more conspicuous point of view, according to the scheme proposed, where they would come under the inspection of a respectable public body, a powerful motive would

would be added, to restrain the vicious, and to encourage the well-disposed.

By this means, the retreats of the thief, and the robber, would also be much straitened; for though it would be improper, and indeed impossible, to bring persons into public lodgings by constraint, yet the number of private lodging-houses would be greatly diminished, and if the plan of licensing them were adopted, it would become very difficult for criminals to avoid the pursuit of justice. Thus the two great objects, of preventing crimes, and facilitating the detection of the guilty, would be promoted.

To persons engaged in sedentary employments, or in those attended with little bodily labour within doors, which is the case in most of the Manchester manufactories, public lodgings might contribute much to the preservation of health, by affording them opportunities of using some agreeable exercise, such as cricket, on their return from

work. At present, the workman, after leaving the warehouse, wastes his evening in the alehouse, or strolls about the streets and fields to a late hour, for the purpose of intrigue.

Next to personal cleanliness, and muscular exertion, the preservation of health depends on occasional changes of clothing. How far it would be practicable to promote this, by the aid of a public institution, must be a subject for discussion, if such an institution should ever be established. Infected, or foul strangers, might, at least, be accommodated, at a small expence, with flannel suits, till their own clothes should be washed or scowered, which is practised in some infirmaries, and ought to be insisted upon in all. Clubs are formed, in some parts of Manchester, for procuring clothes at a moderate price, and perhaps an extension of that plan would answer the purpose.

The establishment of sick clubs, at present liable to many abuses, might be advantageously

ously watched over by a committee of health. I have seen repeated instances, in which those clubs have displayed the most unfeeling avarice. It has often happened, that when an Infirmary patient has procured an attestation from me, that he was sick of a fever, his club has delayed the relief due to him for eight or ten days, in hopes, that the disease might cut him off, and deliver them from the burden of supporting him. I have been many times shocked, by the tyrannical conduct of mercenary overseers, who uniformly treat the poor as criminals, whom they are appointed to punish, but when the poor treat each other with cruelty, I learn to make some allowance for the insolence of those petty despots.

The distress and ruin of many families, arise from other circumstances, which might be easily prevented by a public committee. A young couple live very happily, till the woman is confined by her first lying-in. The cessation of her employment then pro-

duces a deficiency in their income, at a time when expences unavoidably encrease. She therefore wants many comforts, and even the indulgences necessary to her situation: she becomes sickly, droops, and at last is laid up by a fever, or pneumonic complaint; the child dwindles, and frequently dies. The husband, unable to hire a nurse, gives up most of his time to attendance on his wife and child; his wages are reduced to a trifle; vexation and want render him at last diseased, and the whole family sometimes perishes, from the want of a small, timely supply, which their future industry would have amply repaid to the public. If such misery occurs, even when the master of the family is industrious and sober, it is easy to imagine the distress of those unfortunate creatures, who depend on a brutal debauchee. The injuries which defenceless women undergo, in those situations, are too horrible for description: I have met with many instances of incurable diseases, occasioned by kicks or blows from the

the husband, in his paroxysms of drunkenness. Scirrhus of the liver, and of the ovarium, and consequently the worst species of dropsy, have been thus produced.

It would be necessary to add a few rooms for the reception of the sick, to every institution of this kind. Those destined for persons who may be seized with fevers, notwithstanding the precautions enjoined, should be so contrived, as to seclude the sick from communication with every one, but the necessary attendants. A false opinion prevails respecting fever-wards: it is supposed that they perpetuate and extend infection. But I entertain no doubt, that under proper management, they would produce the very opposite effect. In our Infirmary, we are perpetually liable to have the contagion of fever introduced, either by the admission of patients in whom the disease is lurking, or by their receiving visits from persons coming out of infected houses. Formerly, when a fever began in

the hospital, it was found necessary to dismiss almost all the patients, a measure productive of much inconvenience, and general alarm. But since a few rooms were built, in the year 1792, separated from the rest of the wards, for the reception of such cases, though the infection has been more than once introduced, yet by removing such patients as shewed symptoms of fever, at their first appearance, into the secluded ward, and preventing all communication between them or their nurses, and the other patients and servants, the progress of the complaint has been stopped, and no reason has again occurred, for a precipitate discharge of patients.

The necessity of such a plan as that I have suggested, may possibly seem doubtful to those who are not accustomed to visit the habitations of the poor; but I am fully convinced, by personal observation, that the ravages of such epidemics as that of 1794-5, cannot be effectually prevented, without some

some exertions of this kind. Should such a design ever be seriously agitated, the expences of the establishment cannot form an objection, for attempts to secure the health and morals of the labouring poor, are certainly consistent with the true spirit of national œconomy.

DILATATION

of the

HEART.

DILATATION OF THE HEART.

IN the former volume, I gave an account of several cases, in which this affection varied from the common descriptions which occur in medical books. I shall now add a few cases, in confirmation of what I have there advanced.

Sarah Moors, aged twelve, a girl of a very full habit, florid, and healthy in appearance, had been attacked by a violent palpitation of the heart, about a year and half before I saw her, in consequence of a rheumatic fever. The apex of the heart was felt to strike between the sixth and seventh ribs. She complained of orthopnœa, and was often obliged to sit up in bed all night. Her face often swelled; sometimes her feet. She felt a pain and tingling in

in both arms, reaching to the points of her fingers; her pulse was quick; her urine natural. Pain across the breast was sometimes felt. She was directed to take the infusum digitalis, which was continued till it produced sickness, but no relief from the palpitation, though a small bleeding was interposed. The digitalis was then omitted, and she was put on a course of spiritus ætheris vitriolici. From this she derived considerable relief, and though her legs swelled occasionally, grew very tall, and strong. About five months after she came under my care, she had a more than common appearance of health and vigour, though the palpitation was encreasing; but after this effort of the system she began to languish, and was gradually reduced to the lowest degree of weakness. She died at a considerable distance from Manchester, so that I knew the particulars of the last stage only by report. The vitriolic spirit afforded some relief, till within a very short time of her death.

John

John Fletcher, mentioned before, complained of constant pain in the lower part of the abdomen, which sometimes extended upwards, to the region of the heart; the pain was so great, that he commonly lay upon his face. As he had no diarrhœa, no fever, nor any symptom of worms, and the functions of the bowels did not appear to be at all disturbed, I enquired whether he ever felt a palpitation of the heart, and being answered in the affirmative, I thought it proper to examine the breast. I found that the apex of the heart struck between the sixth and seventh ribs; the stroke gave a jarring sensation to the hand, and was visible to the eye. His pulse was feeble and hurried, his tongue clean. He had a dry cough. I ordered him to take thirty drops of tincture of castor thrice a-day, from which he derived considerable benefit for a time. The remainder of this case, I have given under another head.* This boy, at present (March 1795) has advanced very

* On the Effects of Pneumatic Medicine.

little

little in his growth, and will probably become deformed, but his complexion and countenance are natural.

E. Larkin, a girl aged eleven, had been weak, and rather distorted for four years. About six weeks before I saw her, she was obliged to carry several pailfuls of water on her head, and then, for the first time, felt a palpitation of the heart. I found that the pulsation extended across the thorax, and somewhat upwards: the apex of the heart seemed to be nearly in its natural place; the carotid arteries palpitated strongly. Her pulse was frequent and feeble; her countenance pale. Her left foot and ancle swelled sometimes, and she occasionally complained of pain, just above the elbow of the left arm. She had also constant pain and soreness, at first below the scrobiculus cordis, afterwards in the hypogastric region, and of this she complained much more than of the palpitation. She took the spiritus ætheris vitriolici, and tincture of castor, without relief,

relief, for several months, and then, by my desire, suspended the use of medicine altogether. A month after she had discontinued her medicines, the œdema of the lower extremities disappeared, and the palpitation was rather less. From this time, I heard nothing of her till a year afterwards, when I found her nearly in the same state, certainly no worse; and as far as I could judge, from examining the motion of the heart, the dilatation seemed to have made no progress. I have never met with a case, in which the affected part of the heart was so clearly indicated. There was every reason to believe that the right auricle was dilated.

Samuel Holt, a house-painter, fifty-five years of age, had been subject to palpitations of the heart for three years. The stroke of the apex was felt near the tenth rib; it affected his head strongly, and even gave it an external motion. He often felt palpitations in his neck, and sometimes in his left arm. He could not lie upon his right side, in bed, nor easily on his left, and was sometimes obliged

obliged to turn upon his belly for relief. His face was usually swelled in the morning, and his legs swelled towards night. His belly was sometimes distended, and within the last six weeks, he had been subject to considerable pain in the lower part of it. The pulse was full, and quick; his urine rather scanty.

He had been frequently affected with inflammation in the great toe of the left foot, which was preceded by sickness, and came on about day-break, after his first sleep; this inflammation usually relieved the palpitation, and seemed to be approaching when I first saw him. About a year before, he had suffered a severe pneumonic attack, for which he was blistered.

He had been accustomed to paint dead colours, but was obliged, by the violence of his complaints, to relinquish his employment.

I ordered him to take half a grain of opium, with half a grain of digitalis, every five

five hours, and to drink a pint of the cerevisia diuretica daily. Next day he was easier, and the palpitation was diminished: his pulse was still quick, and rather full. Four days after, the toe inflamed; the palpitation was much lessened, and the pulse became considerably softer. The top of the foot was swelled, and there was a distinct gouty inflammation on it. Next day, the swelling and inflammation of the foot were decreased, and the palpitation returned with much violence. I directed the ancle to be blistered, and, as he was costive, opened his bowels with the infusion of senna. A week afterwards, the blister continued to discharge, and was very sore: the palpitation was less, but he complained of a troublesome cough. The palpitation continued to decrease after this period, till he thought himself well enough to be discharged. There never was any remarkable encrease of urine in this case, but I was not quite sure that the remedies were carefully administered, the patient being very capricious, and fond of prescribing for himself.

J. Blakeley, aged eighteen, complained of constant palpitation of the heart, of three months standing. The apex seemed to strike considerably below the usual place. He was greatly relieved by taking digitalis with opium, in small doses, and drinking a pint of the cerevisia diuretica daily.

From these cases, it appears, that dilatations of the heart may be retarded in their progress, by different causes, and particularly by the action of diuretics; that in a certain stage of growth, dilatation of the heart is not incompatible with general fulness of the habit, and even, during a certain period, with some degree of vigour; and that local inflammation, whether produced by specific disease, or by the action of rubefacients, possesses a power of alleviating this complaint, even when supported by organic læsions of the heart itself. Hence, perhaps, the utility of issues, in cases of angina pectoris.

OF THE

EFFECTS

of

PNEUMATIC MEDICINE.

OF THE EFFECTS OF PNEUMATIC MEDICINE.

SINCE the publications of Dr. BEDDOES on this subject have appeared, I have been desirous of trying what prospect of relief his method affords, in disorders which do not yield to ordinary remedies. Had I deferred this publication till I had collected a greater number of cases, my information might have been more satisfactory; but in the moment of enquiry, every additional testimony has its use. In the following cases, the species of air exhibited were procured from the apparatus constructed by Mr. WATT, according to the directions given in his pamphlet.

1. William Whitehead laboured under a confirmed pulmonary consumption, which had been preceded by a spitting of blood.

His cough was very harassing, his respiration difficult, his pulse quick, and his appetite nearly gone. On the first day of his using the hydrogene air, (which was prepared from vitriolic acid and iron filings, previous to the arrival of the apparatus) his pulse, at eleven in the forenoon, was 110. He complained of coldness in the extremities, after inspiring the contents of two bladders, in which the proportion of hydrogene was about a fourth. No alteration in his breathing was perceivable, during half an hour that I staid with him, after the exhibition of the air, but he remarked, that he did not cough again till the evening. He passed a restless night, yet next morning his pulse was only from 60 to 70. The air was now exhibited morning and evening, with evident relief of all his symptoms, and he slept well, with little disturbance from his cough, though the nights were frosty, and the weather was generally foggy. After continuing this plan for a week or two, we were accidentally obliged to suspend the use of the remedy, before the arrival of Mr. Watt's

Mr. Watt's apparatus. I had dropped all his other medicines on beginning to exhibit the hydrogene, and I now allowed several days to pass without renewing them. During this interval, he felt very great relief. His cough abated; his respiration became perfectly free; and his sleep and appetite returned. The hydrogene procured from the apparatus continued to relieve him, but it became necessary to encrease the proportion to a third. In the course of some weeks, however, the progress of the disease, and the rigour of the season, overpowered the effects of the hydrogene: it ceased to give ease, and was at length discontinued.

2. A lady had been afflicted, upwards of eleven years, with a severe spasmodic asthma. The paroxysms generally continued from twelve to twenty-four, or forty-eight hours, and were sometimes so violent, as to deprive her of respiration and pulse for several seconds. They commonly terminated with sickness and vomiting. During the last two years and a half, they recurred more fre-

quently, so that she was seldom free from them above four or five days together.

She began to use the hydrogene, in the proportion of a fourth, not long before the commencement of the hard frost, in January 1795. The state of the weather, on account of the sudden vicissitudes, could hardly have been more unfavourable.

She had used a great variety of remedies with little benefit. Opium relieved the spasms, but brought on a degree of nausea and debility hardly supportable. As she had been subject, several years before, to inflammatory complaints in the chest, and there was reason to apprehend that considerable adhesions of the pleura had taken place, I was induced to expect most benefit, in this case, from the hydrogene, or hydrocarbonate,

Great chillness in the limbs succeeded every exhibition of the air; the fits, however, were evidently postponed, for she enjoyed a more

more considerable interval of ease, than she had experienced for two years and a half, although the weather was very severe. The intense frost, to which she had always been remarkably sensible, at length brought on paroxysms, during which she used hydrogene, hydro-carbonate, and afterwards oxygene, without effect. The oxygene was exhibited, from the analogy of the action of spirituous liquors, which frequently terminate an incipient paroxysm, in this species of asthma. Discouraged by this ill success, the remedy was laid aside for a short time, but on the recurrence of a fresh paroxysm, the hydrogene was again given, in the proportion of a third, or rather more, in a bladder which contained about six quarts. The relief was not immediate, nor suddenly complete; but in the course of a quarter of an hour she was able to walk up stairs to her room, and passed a tolerable night. Another paroxysm was stopped, a few days afterwards, in the same manner. She is still liable to returns of the spasm, but on the whole, has derived more relief from the pneumatic

pneumatic medicine, than from any other remedy.

3. John Fletcher, aged eleven, had a constant palpitation of the heart, attended with signs of a dilatation of that organ, which have been described in another place. He was relieved at first, by moderate doses of tincture of castor, but in the course of a year that medicine lost its power, though the dilatation did not seem to proceed with much rapidity. Conceiving that his distress might be lessened, by diminishing the stimulating power of the blood, I put him on a course of hydrogene, suspending all other remedies. For some time, he felt no sensible effect; at length, the proportion of hydrogene being encreased, giddiness came on after every dose, but the palpitation was not at all relieved. I then directed the hydrocarbonate air, which affected his head so much, that he dropt down after the last dose. Finding the palpitation not diminished, even after this trial, I thought it prudent to discontinue the pneumatic course, and

and ordered him half a grain of digitalis every night at bed-time, which afforded temporary relief.

4. I administered a dose of oxygene, in the usual proportion, to a man who had long been an out-patient of the Infirmary, on account of an asthma, which had been formerly relieved by the free use of bark and opium. He felt great relief, immediately on inspiring the air, and said, that if his present feelings could be continued, he should think himself well. His death, which took place suddenly, a few days after, disappointed me in the expectations I had formed, from the commencement of the course.

5. B. Knowles, a middle-aged man, had been affected with a severe cough, during five years; his expectoration was not considerable, but he was greatly emaciated. The adnata of both eyes was of a pearly white: his pulse was small, and generally above an hundred. He took the hydrogene in

in different proportions, with little or no sensible effect. At length, by repeating the administration of the air three or four times a-day, he complained of much giddiness, but did not feel his cough relieved, nor was his pulse materially altered. The hydro-carbonate was afterwards used, and the event was precisely the same. The course was continued for a month, in the whole, and at the end of that time, he was no better in any respect. It was then discontinued, and he was relieved by the common demulcent remedies, with opium.

6. Anne Banks, twenty-one years of age, had complained for six weeks of severe cough, and copious expectoration. Her pulse was irregular, and much hurried, generally 110, or upwards. She had frequent rigors, night-sweats, her voice became feeble, and her countenance was rather sallow. The menses were irregular. On the 26th of March, I ordered her a dose of hydro-carbonate air, in the proportion of one-twentieth. Her pulse was encreased in frequency

frequency immediately, and she fancied herself rather easier, excepting that considerable giddiness was produced. During the rest of the day, she was much better than usual, and remarked that her voice was stronger than it had been at any time during her illness. I could not learn, however, that her cough had been diminished. She slept better at night, probably in consequence of taking an opiate. She returned next day to the hospital, and took another dose of the air, but not finding so much relief as at first, she did not come again for several days. April 2d, she had a dose of the hydro-carbonate in my presence: the proportion was one-twentieth, in a bladder which could not contain above a quart. Her pulse became more frequent, and was about 120, after she had inspired the air. She perceived no other effect than slight giddiness from the dose; I therefore desired her to take another from the same bladder, which was filled again, with the same proportion of hydro-carbonate. She drew in a very deep inspiration

inspiration from the bladder, and immediately fainted; she revived almost instantly, and only complained of giddiness and confusion in her head. She continued to inspire the contents of one bladder, once a-day, with considerable relief. Her respiration became easier, and she slept better, though the night-sweats still recurred, and her cough was not diminished. Her pulse was still quick. On missing her dose of air one day, she said she had felt a want of it; that her breathing had been less free, and on the succeeding morning her expectoration was streaked with blood. April 7th, she had a severe rigor, after using the hydro-carbonate, her pulse continued quick, and her cough troublesome, but no more blood was expectorated. April 9th, her pulse was as much hurried as ever; her cough was not easier; but she thought her voice rather stronger. On the 10th, I found that she had prevailed on the person who administered the air, to encrease the proportion of hydro-carbonate to a fourth, which produced syncope. She also

also complained of a head-ach, and a sense of tightness in the head, for several hours after each dose. I immediately ordered the proportion to be reduced to one-sixth, and that it should be exhibited thrice a-day. Her cough was now rather more troublesome, particularly in the night. April 13th, her pulse was frequent, but more irregular; she had passed two very restless nights, and her cough had been very distressing. I ordered the hydro-carbonate air to be omitted, and substituted the hydrogene in its place, in the proportion of one-half. April 14th, she had slept better since taking the hydrogene, her pulse was softer, but still irregular, the head-ach was gone, and her countenance was paler. Her cough was rather more troublesome. April 15, she had a stronger rigor than usual, to-day, succeeded by a severe hot fit; her cough was no better; her pulse was very quick, and her breathing much hurried. She felt no sensible effect from the hydrogene; it was therefore encreased to the proportion of two-thirds. The

bladder

bladder in which it was concluded, contained about six quarts. April 16, she had slept better, and sweated less; her cough was nearly as usual; her pulse still very quick. She was directed to use the air three times a-day, that is, to take twelve quarts of the hydrogene in twenty-four hours. On the 17, however, I found that, through some negligence, she had only used the air once on the preceding day. She had slept tolerably well, but was no better in any other respect. This morning, she was sick, and felt great coldness in her limbs, after inspiring the air. April 20th, she had rested better, and had not sweated for the last three nights. Her cough was nearly as troublesome as ever, but she spit less. She was more enfeebled, complained of want of spirits, and looked much worse. Her pulse was frequent, but languid. On the 21st, she had again slept well, and had not sweated. Her cough was not relieved. Her pulse was very irregular, and small, but she thought herself rather stronger. The

air

air was accidentally omitted, till the next day, when she thought her cough rather worse. The hydrogene was administered with great regularity, twice a-day, till the 26th, when her cough was not relieved; her expectoration was more copious and easier; she slept tolerably well, and had sweated a little during the last three or four nights. Her strength was not encreased; she looked more languid and emaciated, and could in no respect be pronounced better. I therefore directed the exhibition of the gas to be discontinued, but recollecting that Whitehead had been much relieved during the intermission of the hydrogene for a few days, I did not order any medicine in its place. After an interval of three or four days, no change of any kind appearing, I put her on a course of demulcents and opiates.

7. Martha Adams, about thirty years of age, was ill of a peripneumony. Finding the dyspnœa continue on the tenth day, after

bleeding, blistering, and keeping the bowels very open, I thought it fair to try whether the use of unrespirable air would afford relief, as it might be expected to do, from Dr. Beddoes's theory. Mr. William Henry had the goodness to superintend the administration of the remedy. She inspired the contents of two bladders, each capable of containing a gallon; the hydrogene was mixed in the proportion of one-third. No sensible effect was produced. She took, at the same time, a mixture with opium, antimonial wine, and mucilage of gum arabic. April 20th, she had slept rather better, but her cough and dyspnœa were not at all relieved. I directed the hydrogene to be repeated. She again inspired the contents of the bladders, with the same proportion of hydrogene: after finishing, she felt herself sick, but was not sensible of any alteration in the state of her cough or breathing. As the gas had now produced a noxious effect, without giving relief, I thought it improper to repeat the experiment.

This

This case destroyed the flattering expectations which I had formed, of finding a powerful auxiliary in this species of gas against pneumonic inflammation. Every circumstance was here favourable to its action. The inflammation was abating, when it was exhibited, yet it did not appear to accelerate recovery in the smallest degree.

8. Helen Jones, aged eighteen, had been ill for nine months, of an incessant cough, some expectoration, and night sweats. She laboured under severe dyspnœa, and her face was flushed, and much swelled. In the course of the disease, her legs swelled also. I put her on a course of hydro-carbonate, without any other remedy, and she persevered in it during six weeks. The air was given twice or thrice a-day, and the proportion was encreased occasionally, till it affected her head. She never derived one moment's relief from it. Finding her symptoms exasperated, and that her legs began to swell, I omitted the pneumatic course, and gave her digitalis, in conjunction with cream of tartar,

assisted by common demulcents. She died, about ten days after the omission of the gas. I considered this as a lost case from the first, otherwise I should have given up the exhibition of the gas much earlier.

On opening the body, the lungs were found perfectly full of tubercles, which, on being cut open, were seen to contain a caseous matter. There was no mark of suppuration in any part of the lungs. All the other viscera, in the thorax and abdomen, were completely sound.

From these cases, as far as they extend, we cannot draw any conclusion highly in favour of the pneumatic medicine. No benefit was obtained from a long course of it, in a case of tubercular phthisis, where it was ascertained by dissection that suppuration had not taken place. In a very recent case of phthisis, that of Anne Banks, the relief afforded by the hydrogene was very trifling, not equal to what I have produced in similar cases, by common methods of practice.

practice. But what has most disappointed me, is the want of efficacy of this medicine, in a curable disease, a common case of peripneumony, in which the patient recovered by the usual remedies. Knowles, also, (case 5th) was greatly relieved from his complaints, by ordinary medicines, after a long, ineffectual course of hydro-carbonate. I have no reason to suspect want of accuracy in administering the gases here. They were prepared exactly according to Mr. Watt's directions; in the beginning of most of the observations, they were exhibited in my presence, and I have carefully noted every accidental omission. That they were given in doses sufficiently strong, is evident, from the intoxication or deliquium which was produced in most of these instances. On the other hand, it must be confessed, that the hydrogene gave much relief to Whitehead, in the advanced state of phthisis, and that some benefit resulted from it, in a chronic asthma (No. 2). As far as my observation goes, therefore, I have only found

the pneumatic medicine palliate, and even that effect has proved but transitory. From the case, No. 3, no conclusion can be drawn.

I am aware, that no positive inference should be drawn, from the small number of cases in which I have employed this method; for I know that practitioners often meet with a series of cases, greatly favourable, or otherwise, to modes of practice, considered alone, which it is necessary to compare with the result of a great number of other cases, indiscriminately taken. I shall, therefore, continue to use the pneumatic medicine, but only in those disorders which prove intractable to common remedies, till I can arrive at certain conclusions respecting it. For I think it wholly inexcusable, to hazard the life of a poor patient, by substituting uncertain remedies, for those which experience justifies us in directing. But I confess that I shall proceed in my trials, with hopes much reduced, and with eagerness greatly abated.

I was

I was induced, by Mr. Cartwright's account of the effects of yeast, in typhus, to order it in one case, in the intervals of administering the bark. The first dose produced such violent sickness, that I did not choose to pursue the experiment farther; and I understand, that the same effect has attended its exhibiton by other practitioners.

All hopes from this source are now completely abandoned. I had occasion, some years ago, to observe to the late Dr. Currie of Liverpool, that the Chemical theory of diseases was merely the Humoral Pathology, elevated in the form of vapour. In which he agreed with me.

AN

ESSAY

on the

MEDICAL PROPERTIES

of the

DIGITALIS PURPUREA,

or

FOXGLOVE.

BY

JOHN FERRIAR, M. D.

PHYSICIAN TO THE MANCHESTER INFIRMARY, DISPENSARY, LUNATIC HOSPITAL, AND ASYLUM.

Nos institutum tenebimus, nullisque unius disciplinæ legibus adstricti, quibus in philosophia necessario pareamus, quid sit in quaque re maxime probabile semper requiremus,

Cicer. Tuscul. Disput. Lib. iv. § 4.

TO

MAJOR-GENERAL JAMES FERRIER,

LIEUTENANT-COLONEL

OF THE

CORPS OF ROYAL ENGINEERS,

ON THE

ESTABLISHMENT OF IRELAND,

THIS ESSAY

IS DEDICATED

BY

HIS AFFECTIONATE NEPHEW

THE AUTHOR.

PREFACE.

THE attention of medical practitioners has lately been directed to some properties of Digitalis, not hitherto generally regarded, by the observations of Dr. Fowler, and Dr. Drake, published in the *Contributions to Medical and Physical Knowledge*, and the *Essay on Pulmonary Consumption*, by Dr. Beddoes. As I have been engaged in a series of observations on these properties, for a considerable number of years, it may not be unacceptable to the profession, to be informed of the result of my experience. I have endeavoured to give a faithful view of it, in the following pages.

We

We are indebted to Dr. WITHERING, for our acquaintance with this valuable medicine, which had long been neglected by regular practitioners, and had remained in unskilful hands, more likely to destroy than to cure, with so powerful a substance. This able physician has taught us to use it, with safety and success. Though he treated of it chiefly as a hydragogue, he has indicated its application to the cure of pulmonary consumptions, and has expressed a wish, that the enquiry might be farther pursued. Dr. Darwin proposed to give Digitalis in consumption, with the view of promoting the absorption of pus formed in the lungs; but since that period, little has been written on the subject. I mentioned its efficacy in active hæmorrhage, and incipient consumption, as depending on its power of diminishing the frequency

of

of the pulse, in 1792; and several practitioners in this place have been induced to employ it, on this principle, in consequence of my recommendation.

There can be no doubt, that much experience has been acquired, respecting the use of this medicine, by many physicians in different parts of the country, during the same period. It is extremely desireable that their observations should now be made known, that the profession at large may be put in possession of all the cautions requisite in administering it, as well as of the benefit which it may be expected to produce.

I have been careful not to over-estimate the powers of Digitalis, and I hope that I have not been mistaken in repeated observations: at present, I regard it as a remedy

remedy of the highest class; its exhibition has become as familiar in my practice, as that of peruvian bark, or opium, with which it deserves to be ranked, and I give it with as little dread, (though never without caution) as either of those medicines. If I am not greatly deceived, it will be found eminently serviceable, in a wide range of diseases; and in the present state of our knowledge, the investigation of its effects promises ample scope, for the exercise of skill and ingenuity.

ESSAY

ESSAY.

on the

MEDICAL PROPERTIES

of

DIGITALIS.

PREVIOUS to the publication of some instances of the efficacy of Foxglove, in hæmorrhages and pulmonary consumptions, in 1792, and particularly since that time, my attention has been much turned to the effects of this remedy, on the sanguiferous system.

An extensive employment of the Medicine, during a period of nine years, has enabled me to speak of its properties with some degree of confidence; and I now lay the result of my observations before the

public, because there is reason to believe, that the Foxglove will become a popular remedy, and that much danger may arise from an ill-timed, and precipitate manner of exhibiting it. It may be useful, also, to give Practitioners in general some idea, of the degree of success which may be expected from it; that their hopes may neither be too strongly excited, by the first fortunate cases which may occur, nor too readily depressed by occasional disappointments.

My early trials of this Medicine in pulmonary complaints, were suggested by the opinions of Dr. Withering, Dr. Darwin, Sir George Baker, and other physicians, on this subject. The effect of Foxglove, in retarding the velocity of the pulse, as a direct sedative,* was too striking to be long over-looked; and when its application, to diminish morbid irritation in the vascular

* The fact is so decisive, that I do not hesitate to employ this term, notwithstanding the jargon, with which the public has of late years been abused, on the subject of sedatives.

system,

system, was once pointed out, the consequences of the idea were easily comprehended. The indication made a deep impression on my mind, which has been strengthened to a conviction of its utility, by a patient and cautious course of observation. It has increased, from the first glimpse of hope which it afforded, in diseases which were once but imperfectly palliated by the continued use of opiates, to the prospect of regulating, without evacuation, the number of arterial pulsations, of directing the movements of the heart itself; and thus acquiring the government of the springs of salutary, and morbid motion.

If any man had expressed an opinion, a few years ago, that we should discover a medicine, capable of reducing the pulse, without danger, from 120 in a minute, to 75 or 80, at the will of the Practitioner, he would have been ridiculed as a visionary. Such, however, under proper management, is the power of Digitalis.

I exhibited Foxglove, at first, chiefly in cases of active hæmorrhage. Its efficacy, in this species of disease, was sufficiently established, by the facts published in the first volume of the Medical Histories and Reflections, to induce me to give it freely, in private practice, as well as at the hospital.

I had an early opportunity of seeing its effects, in a profuse bleeding at the nose. The patient was suddenly attacked by it, in very hot weather, after considerable excess in liquor, and had lost a great quantity of blood, in the course of three days, before I saw him. He had been bled in the arm, and the lixivium martis had been applied to the internal nostrils. His pulse had become sharp, but was not strong, and I thought it would be imprudent to use any farther evacuation. I ordered him a grain of Digitalis, with half a grain of opium, and as the hæmorrhage became very alarming, both by its quantity, and by the debility which it occasioned, I directed the dose

dose to be repeated, in the course of two hours, if the bleeding did not abate. I saw him soon after he had taken the second dose; his pulse was then soft, and considerably reduced in frequency; the hæmorrhage had ceased, and did not return afterwards.

I was consulted by a married woman, under 30 years of age, who had been subject, for several years, to almost constant menorrhagia. She was naturally delicate, and the irritation, and debility caused by the discharge brought on a train of hysterical symptoms. I gave her half a grain of Digitalis, with half a grain of opium, every night, at bed-time; and during the day, she took a few drops of laudanum, with tincture of castor, every four hours. Her pulse, which had been irritable and very frequent, became soft, full, and considerably stronger, and in less than a fortnight, she was entirely freed from the discharge of blood, which had so long distressed her.

It is needless to detail a number of similar cases: I shall only observe, that in many other instances of menorrhagia, depending on increased action of the blood-vessels, I have found the Digitalis succeed completely, even in the small dose of half a grain nightly.* In some instances, I have found it necessary to repeat that dose, in the course of the day, as often as the patient's stomach would bear it.

Let me observe, once for all, that nothing is less accurately fixed in medicine, than one of its most important objects, the doses of remedies. The proper dose of a medicine, is undoubtedly that quantity which produces the effect required, whatever be its numerical denomination. A full dose of Foxglove is, therefore, merely a relative term. To one patient, half a grain may be a full dose; to another, six or eight grains may be given, not only without incon-

* I could mention cases, in which the discharge stopped by the first dose of Foxglove.

venience,

venience, but without producing any sensible effect.

These varieties of sensibility and habit can only be ascertained, by beginning with the lowest dose, and encreasing it with the most scrupulous care. That I might arrive with more certainty at a knowledge of the ordinary doses, I have, since the publication of my first cases, invariably given the powder of the dried leaves, in substance, as the preparation least liable to difference of strength. I have seldom found reason to complain of its want of power, though it may not have always fulfilled the indications, upon which it was prescribed. I have begun the use of the Digitalis with impunity, in so many cases,* in doses of half a grain, that I take no other precaution, than that of joining an equal quantity of opium with it, at first, to lessen the chance of nausea. To shew the necessity of pay-

* I have used it in several hundreds of cases; I cannot exactly determine the number.

ing close attention to the effects of this Medicine, however, I shall mention a case, which occurred to me in the Infirmary, a few years ago. A young woman was admitted as an in-patient, with an incipient ascites, and swelling of the legs, which had been occasioned by exposure to cold. I ordered her to take half a grain of Foxglove, with half a grain of opium, that evening at bed-time. Next day, I found, to my astonishment, that all the bad symptoms, occasioned by an over-dose of the Medicine, had come on. She had dreadful vomiting, cold sweats, and repeated fainting-fits. It was with the utmost difficulty that life was preserved, during three days, by the most powerful stimulants. When she revived, I found that the dropsical symptoms were completely removed. The gentleman who was at that time House-surgeon to the Infirmary, owned to me, that he suspected a larger quantity of the Medicine had been given, than I had directed. The example, however, may not be useless. I have mentioned

tioned formerly an instance, in which one grain of the Medicine produced considerable sickness, with the effect of removing the disease.* In that case, I believe the quantity had been faithfully administered.

Under these impressions, I have frequently ordered Digitalis, in doses of half a grain, to be given every four, five, or six hours, according to the urgency of the case, in active hæmorrhages, even when I was a stranger to the habits of the patient. I have always succeeded in reducing the pulse, and generally in curing the disease; and I have never seen any material inconvenience produced by this practice; a slight nausea being no unfavourable circumstance to the patient. At the same time, that I vouch for the safety of this method, it must be observed, that great attention is necessary, on the part of the physician and the attendants. The patient's pulse must be examined, from hour to hour, and on its

* Medical Hist. and Reflec. vol. 1. p. 40.

first

first tendency to flag, or on the slightest indications of sickness, the exhibition of the Medicine must be suspended. The practice, in such cases, is extremely critical: if the Foxglove be properly given, we stop the progress of an alarming, perhaps a mortal disease, in a very few hours; but the remedy, if incautiously exhibited, may become as certainly destructive as the disorder.

It is well known to every experienced practitioner, that bleeding with the lancet is very inadequate to the purpose of lessening the velocity of circulation, for any considerable time, unless it be carried to a dangerous excess. The Foxglove furnishes us with the means of regulating the pulse to our wish, and of supporting a given state of velocity, as long as we judge it proper. Though bleeding may still be necessary, in the first instance, therefore, yet I apprehend that we can now dispense with the repetition of it, and may thus relieve the mind

of

of the practitioner from a very nice, and perplexing question.

A great difficulty, respecting the theory of the action of Digitalis, has often occurred to me, on this subject. While it lessens the frequency and quickness of arterial contraction, it often encreases, at the same time, the secretion in the kidnies. In the two cases, mentioned in my first volume, and in some others which have occurred subsequently, where all the debilitating effects of Digitalis were exhibited, while the tendency to deliquium was frequent, and the pulse was intermitting, the flow of urine was always increased. In like manner, when great nausea is excited by Digitalis, and the patient's strength is much reduced, the absorbents begin to act with unusual vigour, and take up effused fluids, on which they had previously made no impression. I feel it impossible to explain this phænomenon, at present. The diuretic power of Digitalis, does not appear to me a constant

stant and essential quality of the plant; the power of reducing the pulse is its true characteristic. According to our general notions of therapeutics, these are contrary effects. To say that the action of the arterial system is retarded, and that of the absorbents stimulated, by the same remedy, is rather stating the fact in different terms, than explaining it.* The secreting vessels of the kidnies are, in general, affected by stimulants, which act upon the whole of the blood-vessels; but it is conceivable, that a spasmodic state of the vessels secreting urine, or a diseased action in them, may be overcome by a remedy, which lessens the force of the general circulation, as, in

* One of those useful writers, who undertake to account for every thing, has kindly observed on this passage, that the difficulty may be solved, by considering Digitalis as a *narcotic stimulant*. I should have thought more highly of the gentleman's ingenuity, if I did not suspect that he had taken a hint from the mock Sir Topas of Shakespeare: "Why it "hath bay windows, as transparent as barricadoes, and the clear stones "towards the *South-North* are as lustrous as ebony." The indirect debility of the Brunonians, the quiescent convulsions of Darwin, and several other beautiful inventions of modern Pathologists, are situated, together with the narcotic stimulants, in the *South-North* latitude of Reason.

either

either of the cases which I have supposed, the *vis a tergo* (as the physiologists of the last age termed it) must act as an irritating cause, constantly supporting the disease. This reasoning, I am aware, will only apply to certain states of the kidney, and leaves many instances of the general problem unresolved.—It is the more deficient, because cream of tartar, a medicine which, appears to stimulate the absorbent system in a peculiar manner, and which operates as a hydragogue, even when it does not prove diuretic, acts commonly as a stimulant, both on the intestines and on the kidnies. Indeed, its diuretic power seems to depend much, on its being given in doses so small, as not to prove cathartic. When it purges, its hydragogue quality is not lessened; in which it differs from most diuretics.

This double effect of Foxglove, however perplexing in theory, is extremely beneficial in practice: when it takes place, it adds, in hæmorrhages, a mode of natural evacuation,

evacuation, sufficiently efficacious to relieve plethora, without directly debilitating the system; and what is of the greatest importance, continually operating while we persist in the exhibition of the remedy.

After establishing the power of Foxglove, in cases of hæmorrhage, arising from encreased action, I was encouraged to try it in the first stages of pulmonary consumption.

To prevent any misapprehension, I must observe, that the following remarks apply chiefly to that species of consumption, which is called scrofulous, for want of a better name. Several of my cases, indeed, originated in hæmoptysis, but the symptoms were nearly the same. The reasoning will apply very well to the florid consumption also.

I entered on this series of experiments, with very different feelings. In the former series, the accomplishment of one object, the

the reduction of the velocity of the pulse, constituted the cure of the disease: in the latter, morbid changes are to be counteracted, the nature of which we cannot ascertain, or which, at least, we can only infer, from a circuitous and doubtful train of reasoning; and some of these changes, once produced, appear to be far beyond the reach of medicine. I need only direct the reader's memory to Dr. Starke's dissections of phthisical bodies, for proof of this observation. My expectations of success, therefore, in this class of diseases, were very moderate. I hoped, by diminishing the velocity of the pulse, to lessen one cause of irritation to the lungs; and it appeared possible, that the abatement of the impetus of circulation might lead to a suspension of the diseased action, subsisting in them.—I expected also to derive some advantage from the diuretic effect of Digitalis, though that quality cannot be uniformly relied on.

Whenever an effusion takes place, whether

ther in the bronchia, cellular membrane of the lungs, or the investing pleura, and proves a cause of cough and dyspnœa, we ought certainly to look for relief to this class of remedies. And that such effusions must exist, when the circulation through the lungs is impeded, by alterations of their structure, we are abundantly instructed by dissections.

In this view, I was influenced by the maxim of Baglivi, whom I have found a sure guide, in his practical remarks; *in morbis pectoris semper ducendum esse ad vias urinæ.* Squills, as I have observed elsewhere, probably owe much of their efficacy, in pectoral complaints, to their diuretic power. In the more advanced stages of consumption, I supposed that the hectic fever might be mitigated, in some degree, by the use of Foxglove, and that some of the sufferings, which result from the irritability of phthisical patients, might thus be abated.

One

One of the first cases, in which I tried this method, was that of a young man, who had undergone repeated winter-coughs, and had now, with a severe cough, night-sweats, and much expectoration of a suspicious appearance, acquired the phthisical aspect, and the small rapid pulse, which attends the most prevalent form of consumption, in this part of the kingdom. I began with half a grain at bed-time, and the dose was gradually increased, to two or three grains a-day; his symptoms were completely removed, by this course, even during the winter, and he remained well for a considerable time. I believe, however, that he at length fell a victim to a return of the disease.—Several other cases, of a similar nature, were treated in the same manner, and with at least temporary success. But in most instances I was disappointed. The remedy seemed, for a while, to retard the progress of the disease, but the symptoms, at length, burst out, and seemed only

to proceed with more rapidity, in consequence of the transient delay.

I have seldom found it necessary to exhibit large doses of the Digitalis, in this mode of practice. Three or four grains a-day have always depressed the pulse sufficiently for any useful purpose; they have brought it to 76 in a minute; and I have met with few persons, whose stomachs could bear a larger quantity. I have known eight grains a-day given, but they had no sensible effect, either from some fault in the preparation, or from the peculiar constitution of the patient.

I gave this remedy in a case of phthisis, which succeeded a copious haemoptysis. The disease was confirmed, before I saw the patient. The Digitalis quieted the pulse, relieved the cough, and gave the patient feelings of recovery. It was continued for nearly two months, and though he sunk under the disease at last, yet he certainly

certainly suffered little, compared with other consumptive persons, and much less than he had undergone at the commencement of the disease.

It is justly remarked by Dr. Beddoes, that phthisical patients have many distressing symptoms, and that the progress of the disease is not that of a silent and insensible decay, which some writers would lead us to believe.

I have too often witnessed the impatience, and agony of the sufferers, and heard their supplications for relief, which our art affords but imperfectly. I was once prevailed upon, by the intreaties of a young man, and of his friends, to put him under the influence of opium, to relieve the tormenting cough and dyspnœa. The first effects of the full dose were astonishing. His troublesome symptoms vanished, in the course of a few hours; from being unable to move, he found himself so alert, that he

dressed, and went into the street, where he took several turns, and I was blamed for having delayed the use of so powerful a remedy.

It was in vain that I represented the inevitable consequences of suppressing expectoration, which had been very copious before the continued exhibition of opiates; his recovery was fully expected by himself, and every person about him, for two or three days, and the opiate was renewed every four hours, with great alacrity. At length the scene changed; the lungs became gorged with matter, which no efforts could discharge, and he expired in great misery.

If nothing more were gained by the use of Digitalis, than the mitigation of suffering, therefore, we might still deem it a valuable part of medical practice in phthisis pulmonalis; but much more extensive benefit may sometimes be derived from it.

A young

A young gentleman, about 17, was exposed to the action of cold, soon after a severe pneumatic attack: he was, in consequence, affected with cough, pain in the side, frothy expectoration, dyspnœa, anasarcous swellings of both legs, and swelling of the face. His pulse was frequent, generally from 110, to 120, quick, and remarkably sharp. The urine was rather scanty. He had been blistered, and had used mucilaginous medicines and opiates, with little relief. It was the opinion of the gentlemen whom I met, as well as my own, that tubercles were forming in the lungs, and I proposed the exhibition of Digitalis, with the view of suspending the progress of the disease, and, if possible, of enabling the patient to try the effect of change of air, and travelling. The remedy was given in small doses, but, for some time, without any sensible effect. The pulse continued rapid, night-sweats came on, the cough encreased in violence, pains in the hypogastric region were felt, which

appear to me particularly characteristic of phthisis;* and at length the patient was unable to lie down in bed. In this extremity, we determined to push the dose of Digitalis, as far as the stomach would bear it, and it was advanced to two grains and a half, every day. The effect on the pulse now took place: it was reduced to 86, and was preserved at this moderate rate, till the intervention of sickness made it necessary to omit the medicine for a short time, when it increased in velocity again. Upon persevering a little longer, the diuretic action began, and in the course of a short time, all the most urgent symptoms went off. The patient could now sleep soundly in a horizontal posture, the swellings lessened,

* Pains in this situation generally accompany considerable chronic diseases in the heart. Dilatation of the heart is denoted by pain about the region of the bladder, just above the os pubis. The phthisical sympathy occasions violent pain on one side, about the situation of the waistcoat pocket in males. I have sometimes conjectured, that the pain, in affections of the heart, might be propagated along the course of the aorta; internal sensation is so indistinct, that it might be easily referred to a part anteriorly situated. Perhaps in phthisis, the uneasiness may be propagated to the peritoneum, from the inferior process of the diaphragm.

and

and the cough and expectoration were much abated. By continuing the medicine about three months, health was so far restored, that the patient could use exercise without any inconvenience, and the pulse was preserved in a quiet state. Some degree of dyspnœa still remains, and I apprehend a relapse on the return of cold weather, as my wishes for a change of climate have not been complied with; but the case affords a remarkable proof of the power of Digitalis.

About the time that the case which I have mentioned was under treatment, I was consulted for a middle-aged woman, who had every symptom of confirmed consumption. She had a deep, hollow cough, expectoration apparently purulent, night-sweats, flushing of the cheeks, and a very quick pulse: she had been ill for several months, and had been confined to bed some weeks. I advised the gentleman who attended her, to try the Digitalis, in

sufficient doses to affect the pulse, and left her without the expectation of hearing any favourable account of her. Some weeks afterwards, I had an opportunity of enquiring after her, when I learned, to my surprize, that she had recovered so far, as to be able to walk about, and attend to her family.

In a third case of phthisis, which seemed peculiarly proper for the trial of Digitalis, because irritability was the prevalent appearance in the disease, and the cough was long attended with very little expectoration, the pulse was reduced from 120, to 76, with great temporary alleviation of the symptoms; yet the disease ran its fatal course, though the medicine always retained some power of palliating.

The action of Digitalis on the pulse, was carried as far as was prudent in this case; it was not suspended till the pulse was disposed to intermit, and some degree

of

of nausea was excited (the intermission was not the effect of sickness). I was fully satisfied, that the morbid action, in this instance, was not capable of being checked, by the sedative power which the remedy exerted, on the circulating system.

I could add a long list of instances similar to the last, but it would consume the reader's time to no purpose, for the result of my experience may be told in a few words: it is, that the patient's ultimate recovery is not to be confidently expected, even when the pulse is reduced in velocity, and the symptoms are evidently mitigated, for a time, by the action of the medicine.* Many disappointments have taught me not to be elated, by one or two instances of success; and I should deceive the public, if I presented to them only examples of fortunate practice. I believe that Digitalis,

* The reader will find a case, strongly in support of what I have advanced, in the letter with which I have been favoured by Dr. Percival. See the appendix.

properly

properly administered at the beginning of Phthisical affections, may suspend the morbid action of the lungs, by which tubercles are formed; that by its continued exhibition, after hæmoptysis, it may be possible to procure the cicatrization of the ruptured vessels, and thus to prevent the formation of ulcers; and I am even disposed to hope, that its power of soothing irritation may extend so far, as sometimes to heal ulcerations of the lungs, in the advanced stage of consumption. A remedy, from which these expectations may be indulged, is of unspeakable value, and merits the strictest attention of the physician. But, at present, I dare not suppose that many cases of confirmed consumption will be cured by it; for the extensive mass of disease, generally apparent in inspecting the lungs of phthisical subjects,* and the strange formation of new morbid parts discoverable in it, would

* I use the word 'subject' here, according to the language of the dissecting-room.

require

require for its amelioration, an effort of the power which originally created the living body.

The colliquative sweats of consumptive patients are often much relieved, by the use of night-shirts made of spun silk, which less easily imbibe moisture than any other species of covering. This manufacture, which is known by the name of *Silk-sheeting*, was invented by the late Mr. Crowther of Stockport, for his own use, while he was suffering from hectic fever and nocturnal perspirations; and he assured me that he was entirely relieved by it from the sweating. I have employed it, with great comfort to the patients, in consumptive cases, and in chronic rheumatism. In point of warmth, it is intermediate between calico and flannel; and its softness and dryness render it much more pleasant than either, to an irritable invalid.

* This manufacture may be found procured from Mr. Wm. Crowther, of Stockport.

Though

Though I have mentioned the Digitalis, as the active remedy employed in those cases to which I have referred, it must be added, that I have found it powerfully assisted, in some instances, by the exhibition of myrrh and the ferrum vitriolatum, at the same time. I have even remarked, occasionally, that the cough and dyspnœa were relieved, and the frequency of the pulse was diminished, by the use of this mixture alone, when opium and Digitalis had produced but little effect. The dose of the salt of iron was generally five grains, repeated four times a-day.

In this dose, I have never found it to accelerate the pulse, nor to disagree with the stomach. A patient of mine was affected with consumptive symptoms, after a copious discharge of blood from the lungs and stomach, occasioned by intemperance, and accidental violence. I tried the usual methods of relief, and among others, opium with Digitalis, but with very little effect.

I then

I then directed a mixture, containing myrrh and the ferrum vitriolatum, in the dose mentioned above. He experienced great relief, after taking a few doses, his pulse rose in strength, and became regular, his night-sweats, which had been profuse, were suspended, and his nights were passed more quietly. But these favourable appearances were only temporary. In another case of general scrofula, where the lungs were attacked, and consumptive appearances constituted, for a time, the most formidable part of the disease, the cough, dyspnœa and night-sweats were entirely removed, by this method of treatment.

The advantage derived from this practice, induced me to give steel in substance, in considerable doses, sometimes alone, sometimes in conjunction with peruvian bark, and other tonics; and I went through a complete course of observations on this plan, in cases where I had an opportunity of attending narrowly to phthisical patients. I found

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almost inclined to doubt the
the practice. I believe, howev
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the Digitalis without difficulty
that very great, and almost imm

may thus be obtained, even when the Digitalis does not produce any diuretic effect. One patient, for whom I advised this course, had laboured under spasmodic asthma during several years; the symptoms were suspended by a few doses, but when the medicine was discontinued, they immediately returned. After a long continuance of the course, the omission of a single dose still gives occasion to a recurrence of dyspnœa and cough; and the efficacy of the remedy has thus been demonstrated in repeated instances, by the return of the complaint, when the repetition of the Digitalis has been neglected.*

After these remarks, the reader will conclude, that I have exhibited this remedy in coughs of long-standing, which form a considerable part of our objects of practice, at the Dispensary. I was more particularly induced to give it, in this species of disease,

* See the annexed letter from Dr. Percival.

because

because it is probable, that some effusion into the cavity of the chest, frequently accompanies chronic affections of the lungs. Swelling of the face is a very common symptom in such coughs, and their progress is generally closed with anasarca of the lower extremities. The use of Digitalis, in such cases, has proved very beneficial; it has given, at least, more relief than any other medicine which I have employed.

The utility of Digitalis, in these cases, may be explained in another manner. The lungs may be supposed to acquire a habit of secreting a superfluous quantity of mucus, in consequence of repeated inflammatory attacks, and the stimulus of a harassing cough, continued during a great part of every year. Such a habit may be readily checked, by the sedative power of Digitalis.

Many of the cases to which I refer, are of that genus, to which the German practitioners give the title of *Phthisis Mucosa.*

I have

I have had occasion to mention, formerly, the utility of Digitalis in palpitations of the heart. As the direct action of the medicine, is the salutary power required, in these cases, it is strongly indicated, and is indeed eminently serviceable. I have known it to remove the complaint entirely, where it had risen to an alarming degree, in consequence of terror, and intemperance; and even in cases depending on organic læsions of the heart, or great blood-vessels, it has relieved the symptoms, and rendered life not only longer, but more supportable. It is evident, that I mean to except from these observations, the symptomatic palpitations which accompany dyspepsia, or a state of general nervous debility.

Though the diuretic effect of Digitalis be more uncertain than that of some other remedies, its exhibition ought not to be neglected in dropsical cases. Upon some habits it exerts an immediate and powerful action, in encreasing the urine, and as the

probability of deriving this effect from it can be ascertained, after a few doses, the experiment is always worth making. The plan of treatment which I generally prefer, is to give cream of tartar, early in the morning, in purging doses, and to throw in the Digitalis with opium, in increasing doses, every evening. But when the bowels are rather too open naturally, or when great debility renders purging hazardous, I give Digitalis in half-grain-doses, at intervals of five, six, or eight hours, with the usual precautions. If no beneficial effect be perceivable, in the course of a few days, I exchange the Digitalis for some other diuretic; and I am persuaded, that when this remedy, given in such quantities as to alter the pulse, does not speedily act as a hydragogue, or as a diuretic, it is merely loss of time to persevere in its exhibition. Its successful operation is sometimes so quick and salutary, as to astonish the patient and his friends: I have seen all the symptoms of general dropsy, attended with a fluttering,

fluttering, feeble pulse, removed by small doses of Digitalis, in the course of a week; and in one remarkable case, to which I refer, the vigour and steadiness of the pulse encreased, exactly in proportion as the water was withdrawn from the cellular membrane. In that case also, the skin of the penis was extremely distended, and tortuous, a symptom which is generally reckoned mortal, or at least extremely discouraging. There appears to be some peculiarity of structure, in the cellular membrane in this part, which renders it less susceptible of accumulation than that of other parts of the body: for it has been remarked by anatomists, that fat is not deposited under the skin of the penis, in any remarkable quantity, even in very corpulent subjects; and effused fluids do not seem to find admission into it readily. This symptom, therefore, is only alarming, as it indicates an extraordinary disposition in the exhalents to effusion, and great want of action in the absorbent vessels. But I

have much more frequently been disappointed in the operation of this remedy: it has either failed in promoting the flow of urine, or it has not reduced the swellings, when the quantity of urine has been increased.

I have had reason to regret, that the employment of this remedy does not afford the patient any security against the inflammatory, or hæmorrhagic affections of the villous coat of the stomach and intestines, which are so frequently the harbingers of death, in dropsical disorders. The following case, which has just come under my observation, shews this in a striking manner, and deserves to be stated, besides, on account of its connexion with another part of the preceding remarks.

Mr. T. P. a young man, became affected with ascites, in consequence of a long abuse of spirituous liquors. His skin was hot and dry, his pulse very rapid, and rather irregular;

gular; his urine very scanty; his breathing difficult, and his thirst great. The countenance was of a dark purple hue. He took the Foxglove, sometimes with opium alone, sometimes conjoined with Calomel and Dover's powder (a formula, which I shall notice afterwards), and after some short interruption, used half a grain twice a-day, very steadily. He took, besides, small doses of oxymel of squills, spiritus ætheris nitrosi, and tincture of cantharides, in form of drops, twice or thrice a-day. Under this treatment, the enlargement of the abdomen appeared to lessen; it fell in size, from a quarter, to half an inch, daily, before any considerable increase of urine had taken place; but generally recovered its dimensions towards evening. Swellings of the feet and legs soon made their appearance, and the abdomen became more distended, though the patient was then parting with double the quantity of urine that he had formerly made. The distinction between the diuretic, and hydragogue actions was

here very evident. After several fluctuations of the symptoms, during which the use of Digitalis was still continued, as the urine came off in larger quantity, he was suddenly seized with a vomiting of blood, and parted with some bloody stools. The vitriolic acid, with laudanum, was given, but with only temporary relief; blood continued to be discharged, in different states of extravasation, till the patient's death, which speedily took place.

When I have been unable to produce any considerable effect, by the exhibition of Digitalis alone, I have tried to quicken it, by combination with other diuretics. I have found the junction of Calomel and Dover's powder with it, remarkably efficacious; the formula which I generally use, contains half a grain of Digitalis, a grain of Calomel, and eight grains of Dover's powder, made into two pills. I begin with this quantity at bed-time, and repeat it during the day, according to circumstances.

cumstances. It is sometimes not easy to retrace the ideas, which lead us to form particular combinations of medicines; when the *callida junctura,* which is still more desirable in medicine than in works of taste, has been obtained, we forget the imperfect attempts, that preceded our success.

It is obvious, that when much disease of the internal viscera exists, the reduction of the swellings can only be considered as a palliative measure; such it was, in the case which I have just recited: Yet life is often prolonged for a considerable time, by this mode of treatment, and the patient is thus freed from many distressing feelings. In some cases of general dropsy, where the lungs were particularly oppressed by the effused fluid, I have known great temporary benefit derived from small doses of gamboge, dissolved in the spiritus ætheris nitrosi.

A few years ago, I was called to a middle-aged man, who had been affected with symptoms of hydrothorax, during a considerable time, and was then beginning to swell, in the limbs and abdomen. I found him labouring for breath, and his face almost black, from the retention of blood in the vessels of the head. I ordered him to take, without delay, four grains of gamboge, and two drachms of spiritus ætheris nitrosi, in a draught: this produced several stools, and relieved all his uneasiness, in about two hours. The draughts were repeated every day, with different proportions of the gamboge, according to circumstances, and they continued to keep him easy, and even to inspire him with hopes of recovery, upwards of a fortnight. The disease, at length, proved too strong for any remedy. On such emergencies, we cannot wait to ascertain the exact dose of gamboge adapted to the bowels. I have generally found, that adults, who are not previously much exhausted, will bear four or five grains,

grains, without inconvenience. It operates, without producing either nausea or griping; I sometimes add a grain or two of calomel.

From what has been said of the sedative power of Digitalis, it may be expected to prove highly useful in many cases of active inflammation, particularly in pleurisy, and peripneumony, after bleeding has been practised, as far as the patient's strength will permit. We have long wanted a remedy, capable of lowering the pulse, in certain states of these disorders, without increasing evacuation to a dangerous degree. The practice of frequent small bleedings, which relieve the breathing for a few minutes after the vein is opened, often proves an inadequate resource. Hitherto, we have been only able to reduce the pulse, by two methods; either by withdrawing a quantity of the circulating fluids suddenly, or by producing nausea.

In

In hydrocephalus, the Digitalis appears adapted to some indication, in every species, and every stage of the disease; as promoting absorption, lessening irritation, and diminishing fever. Calomel, which has been found useful, in the first stage of hydrocephalus internus, may be properly combined with Digitalis, in this disease.

Under the circumstances of active inflammation, mentioned above, I conceive that Digitalis, given with the necessary cautions, every four or five hours, will supply every deficiency hitherto felt, and will afford the desired relief. Even after inflammatory exsudation shall have taken place, this medicine bids fair to save the patient, by promoting absorption, and lessening the general irritation. On this subject, I do not possess a sufficient number of facts to speak positively. Genuine inflammation appears so seldom, in this part of the country, that I have met with few cases of pneumonia, since this application

of

of Digitalis has occurred to me. From the few trials which I have made, however, I should be disposed to place great confidence in it, upon such occasions.

Upon the same principles, I should think that Digitalis may be properly joined with opium, in cases of gangrene, proceeding from excessive irritability. In croup, also, in the inflammatory sore-throat, and other diseases, consisting in active inflammation, its exhibition may be expected to prove useful.

What would be the effect of an injection, composed of the infusion of Digitalis, in virulent gonorrhœa? The solution of opium is sometimes too irritating. I throw out these observations merely as conjectures, to be contradicted, or confirmed by future experience; they appear to be probable results from the ascertained properties of the remedy, but they can only be considered as opening new tracks of enquiry, till they are verified by careful trials. A striking

striking proof of the fallacy of conjecture,* appears in the failure of Digitalis in maniacal cases; with me, at least, it has not yet succeeded in this apparently promising application.

It would, indeed, be extremely rash, to decide at present on the various indications which may arise for the exhibition of this remedy, from the general principle of suspending increased action. If any medicines have been serviceable, on this principle, in cases of scirrhus or cancer; if cicuta have ever cured such diseases, in any stage, which I confess appears very doubtful, we may resort to Digitalis, with rational hopes of finding it a still more powerful agent, in the state of irritation, or ulceration.†

* Some recent information has induced me to think of trying this medicine again, in mania.

† In cases of internal suppuration, in lumbar abscess, for example, and collections of matter in the bursæ mucosæ, or cavities of the joints, it would be worthy of enquiry, to ascertain the power of Digitalis. The effect of sea-sickness, in removing such accumulations in the joints, is well known; if some degree of nausea were to be produced, by the exhibition of Digitalis, it might occasion absorption of the effused fluid.

It

It may also be interesting, to ascertain the effects of the external application of Digitalis, in tumors, or ulcers, accompanied with much pain and irritability. It promises to be of service in painful herpetic affections, when employed as a lotion.

These hints may give the reader some idea of the range of enquiry, which I had projected, on the subject of this medicine; the most important and obvious parts of this investigation have occupied a great share of my attention, during several years, and it would evidently require many more for its completion. The facts which have been already ascertained, however, appear to deserve publication, even in this imperfect state; and I have not hesitated to lay open my farther views, which I have not yet been able to verify, because they may facilitate enquiry, to those who may be less familiar with the exhibition of the remedy. Conclusions of so much moment to the welfare of mankind, cannot be formed from the

the events of a few weeks or months. They must depend on an estimate of the greater number of results, from many cases, under circumstances nearly similar. This is the foundation of experience with every rational man, not only in medicine, but in all reasoning concerning probable evidence.

The mischief of precipitate conclusions is no where more sensibly felt, than in medical practice. A rash induction, may, before its fallacy be properly exposed, occasion the sacrifice of many valuable lives; and a fact inaccurately reported, may prove a source of false reasoning, and of practical error, to several generations.

From the evidence which has been produced, I think we may conclude;

I. That Digitalis is a direct remedy in active hæmorrhage, by its proper action in retarding the velocity of the circulation.

II. That

II. That the diuretic action of Digitalis, though independent of its sedative power, may sometimes take place in conjunction with the latter, and may even co-operate with it, by its effect on the system as an evacuant.

III. That in pulmonary consumptions, arising from hæmoptysis, or tubercles, much relief may be obtained from the use of Digitalis; and that even a cure may now be hoped for, under circumstances which formerly precluded all expectations of recovery.

IV. That in anasarcous affections of the cellular membrane of the lungs, or in cases where effusion, or inflammatory exsudation shall have taken place, Digitalis promises to prove an useful medicine.

V. That upon the principle of diminishing irritability, Digitalis has been very useful, in chronic coughs, in spasmodic asthma,

asthma, and in palpitations of the heart, not depending on simple debility.

VI. That the hydragogue and diuretic powers of Digitalis, although not invariably exerted in consequence of its exhibition, are sufficient to render a trial of it proper, in most cases of dropsy; but that it seems to operate most beneficially, when combined with other hydragogues, or sudorifics.

VII. That when Digitalis is to be exhibited repeatedly, during the day, and especially if it be thrown in at short intervals, in cases of urgency, the strictest caution is necessary, on the part of the physician and the attendants, to prevent the alarming, and even fatal consequences, which may arise from administering this powerful medicine incautiously.

VIII. That in simple inflammatory diseases, the use of Digitalis may perhaps supersede

supersede the necessity of repeated bleeding and purging, and may save the practitioner from much anxiety and embarrassment, which attend the present practice, in such complaints.

If any person were inclined to write a satire on medical evidence, the different testimonies respecting the properties of this single plant would furnish abundant materials. 'It is a diuretic,' says one physician; "It has no diuretic power," says another; "It is a stimulant," says a third; "It is a sedative," cries another. "It has no properties at all," exclaims a fifth. What should the public believe?

I have now been in the habit of using this medicine familiarly, about nineteen years; and whenever I have given it, my attention has been exerted, equally from expectation of its beneficial, and apprehension of its deleterious powers. I may there-

a phthisical complaint, accompanied with occasional hæmoptysis, called upon me, one day, just after I had been reading the late Dr. Hamilton's Treatise on Digitalis. The patient came to inform me, that he had felt a return of pain in his side, and considerable acceleration of the pulse, and had brought up some blood with his expectoration; but that he had resorted again to his Foxglove-pills, and in two days had reduced his pulse to 65 strokes in a minute. I could not help stopping him here, to inform him, that different medical writers, (Dr. W. Hamilton, and Dr. Sanders) denied the possibility of such an operation. It would have been truly edifying to some young experimental writers, to have heard the expressions which this philosophical intelligence drew from my patient, who had repeated these trials on himself, till he was perfectly expert in the use of the remedy. But I have had a particular advantage, in conversing frequently, on the effects of Digitalis, with a medical friend,

the

the late Mr. Brennand of Oldham, who had begun to take Digitalis, previous to my acquaintance with him, and who persevered in the use of it for six years before his death, to ward off attacks of hæmoptysis, to which he had been subject, and to prevent pulmonary consumption, which he apprehended, and which at length took place. During this long period, he found that he possessed completely the power of regulating the frequency of his pulse; and the progress of a fatal disease was often suspended, and evidently retarded by the power of this medicine. The only disagreeable effect which he experienced, was a listlessness, approaching to drowsiness, but not producing more sleep than natural. I shall only add, that it is no unusual occurrence with me, in visiting a phthisical patient, with an intelligent country surgeon, to agree upon the medium standard at which the pulse shall be kept, by means of this remedy, allowing for its casual action on the stomach.

II. Respecting the diuretic powers of Digitalis, I retain my former opinion; that they are very unequal and precarious; sometimes rapidly, and astonishingly effectual; at other times, inert and absolutely torpid.

III. I have nothing to add to my former observations, on the use of Digitalis in pulmonary consumptions.

IV. In pneumonic inflammation after proper evacuation, and catarrhal fever, I find the Digitalis, in conjunction with camphor and opium, eminently serviceable. Indeed, in cases of this nature, I should feel myself extremely at a loss, without this combination.

V. I have been disappointed in the efficacy which I had hoped to find possessed by Digitalis in maniacal cases. I gave it, in one instance, till the pulse was much reduced in velocity, and rendered soft, yet the

the patient's frenzy was not at all diminished. This gives reason to suspect, as far as a single case can go, that the sedative effect is produced by Digitalis on the muscular fibre, more than on the nervous system.

The great *desideratum*, in exhibiting this medicine, is to acquire the art of exciting nausea by its means, with safety to the patient. From some cases which I have seen, and from several others of which I have heard, I am persuaded that dropsical swellings may almost always be removed, in consequence of vomiting provoked by Digitalis. But in every instance where this has undesignedly happened, the patient's life has been exposed to such imminent hazard, by the deleterious effects of the medicine, that I have never dared to venture on the experiment.

The nausea sometimes comes on with a single act of vomiting, so suddenly excited, and so quickly past, that it creates little

attention in the patient or his friends. It returns every day, in this manner, if the medicine be continued; after this, constant, gentle nausea begins, sometimes accompanied with giddiness, and a fluttering, or intermittent pulse. We can venture no farther with safety; for these effects may continue for ten days or a fortnight after the use of the medicine has been suspended; and even an accumulated action, producing deliquium, may occur, after the first symptoms have disappeared. But the absorbents are generally excited to action most strongly, after appearances of this kind have taken place, and pus, as well as effused serum, then disappears; in this manner phthisical patients are sometimes astonishingly recruited, after undergoing a slight nausea from Digitalis.

APPENDIX.

APPENDIX.

A NOTE

from

Dr. PERCIVAL to Dr. FERRIAR,

on the

PROPERTIES OF DIGITALIS.

August 12th, 1799.

I am much inclined, with my venerable friend Dr. Darwin, to congratulate the faculty, on the acquisition, or rather the revival, of so valuable a remedy, as the Fox-glove. Your experience of its efficacy both in hydropic and pulmonary disorders, is consonant to mine; but I entirely agree with you, that in the latter cases, it has been extolled too highly, and that danger may arise, from unreserved confidence in its powers, and from the want of due discrimination in applying them. I have now under my care a lady, who labours under phthisis pulmonalis, arising probably from

from tubercles in the lungs. She is harrassed with incessant coughing, which is not attended with much expectoration. The matter discharged, however, has a purulent appearance. I directed for her the following pills, in conjunction with the daily use of Griffith's myrrh and chalybeate mixture, now so well known, and so generally approved. R. Pulv. Digital. purp. Opii purif. Flor. Benzoes ā ā gr. j. Mucil. G. Arab. q. s. M. ft. Pil. ij. Capt. j. meridie et alteram hora decubit. omni nocte. This plan was pursued some time, with little or no alteration of the cough, or abatement in the quickness of the pulse. A fuller exhibition, was therefore adopted, according to the following formula; other medicines being discontinued. R. Pulv. Digital. Opii. purif. ā ā gr. ij. Flor. Benzoes gr. iss. Mucil. G. Arab. q. s. M. ft. Pil. iij. Capt. j. 8va. quaque horâ. Two grains of Fox-glove, with the same quantity of opium, were thus administered every twenty-four hours, for the space of two days. At this

this period, I found the pulse feeble, irregular, and tremulous, and reduced from 120, to 56, or 60 strokes in a minute. The Digitalis had produced neither nausea, vertigo, nor palpitation of the heart; but as the cough was in no degree mitigated, by its powerful action on the arterial system, I judged it wholly improper to persevere in the exhibition of it.

You desire me to state to you the particulars of a case, which some time ago interested my tenderest feelings, and in which you favoured me, with your kind and judicious assistance. Mrs. P. has long been subject to very severe paroxysms of asthma. In the spring of 1797, I was alarmed with the recurrence of this disease, accompanied with symptoms, which appeared to threaten pulmonary consumption. You encouraged me to make trial of the Fox-glove, which I did, by administering it, under the 1st formula set down above.— In this way she took Fox-glove, opium, and

and flowers of Benzoin, of each one grain, in the course of every day. No inconvenience was experienced from the use of this remedy; though opium, in almost every other combination, was wont to occasion the most distressing oppression of the breast. In a short time the cough became more composed, the dyspnœa ceased, and the pulse lost its febrile quickness, without becoming either too slow, or depressed. Her health was gradually re-established, and has continued tolerably good ever since, with the exception of a few slight interruptions. But the pills are become necessary to her, for if they be omitted two nights successively, the cough never fails to recur with violence. Dr. Darwin's theory of the nocturnal asthmatic paroxysm, appears very applicable to this case; "It is probable," says he, "that the fluid which is perpetually secreted into the cavity of the chest, or into the cellular substance of the lungs, is not duly re-absorbed during the less irritable state of our system in sleep."

I feel

I feel much satisfaction, that you have directed your attention to this interesting subject of enquiry, knowing as I well do, your talents for, and extensive opportunities of observation. It may be worthy of your consideration, whether the action of Foxglove in Hœmoptöe, is not analogous to, though much more efficacious than that of Ipecacuan, administered many years ago, with success, by Dr. Bryan Robinson, of Dublin. Both medicines diminish the action of the heart, and thus afford time for the bleeding vessel to contract, and a coagulum to be formed, at the orifice of it. I am particularly solicitous, that you should point out the *cautions* to be attended to, whenever Digitalis is prescribed in phthisis pulmonalis. Under the earlier stages of this disorder, and especially when the mucous membrane of the lungs is affected, by an acrid defluxion, or inflammatory exudation, this remedy promises to be highly beneficial. But when the cough is dry, and proceeds from tubercles, in

languid

languid habits, I have remarked, that it is not only unavailing but injurious. The fever, in these circumstances, is of a very depressing and debilitating kind; and Foxglove must be as improper as if administered in typhus, or the angina maligna. I am impatient to see the work of Dr. Beddoes on this subject, as I promise myself much information, from the perusal of it; but it cannot supersede the propriety of offering to the public, the result of your observation and experience.

THO. PERCIVAL.

OBSERVATIONS

ON THE USE OF DIGITALIS, IN LUMBAR ABSCESS,

BY MR. SIMMONS.

P. F. æt 27, was admitted under my care, in the Infirmary, in March 1799, for a collection of matter in the upper part of the left thigh, under the fascia. His disease had been of two years continuance, and having, at first, put on the appearance of the sciatica, it had been treated accordingly. This I learnt only after his death, for he gave me but an indistinct account of his early complaints, and kept from me any mention of the sciatic affection, which would have immediately determined the character of the abscess. From the distinctness of the fluctuation between the bellies of the triceps on the inside, and in the direction of the great trochanter on the outside of the limb,

(the

(the leading feature of the case having been suppressed,) I was inclined to think it a lumbar abscess; but it wanted the characteristic signs of that complaint, neither pain in the loins having preceded, nor any uneasiness attended the turning of the knee outwards.

Whatever might have been the original seat of the complaint, the indication now to be pursued was clear, and I proceeded to let out the matter, on the principle recommended by Mr. Abernethy.

By the first operation, at least a quart was discharged, and as successive collections afterwards formed, at the interval of a few weeks, it was repeated several times. The quantity of matter evacuated, at each perforation, varied from a quart to nearly three pints, of a thin sanious appearance, though not fetid; and sometimes tinged with blood. The latter circumstance might be occasioned by gentle pressure on the limb,

limb, which was employed to facilitate the discharge of the matter from between the muscles on the inside of the thigh. During this time, he took such internal medicines as were indicated by the symptoms.

As his strength continued to fail, and a natural opening had formed itself, through which the matter was occasionally pressed out, I sent him into the country for the benefit of pure air; but he returned to the hospital again, in a few weeks, more feeble and emaciated than before; and with a considerable collection of matter in the tumour, the natural orifice having latterly closed.

The Digitalis now offered itself, as calculated to abate the hectic frequency of his pulse, and as likely to promote the absorption of the accumulated matter. With this intention, it was directed to be taken, in half-grain doses, once, and then twice a-day; at first combined with aromatics, and then with opium.

The first effect of the medicine was, to reduce the frequency of his pulse; and to induce a relish for food, which he had loathed for some time; and also to moderate a very distressing thirst. The sickness then came on, and continued with so much violence as to resist the exhibition of cordials, opiates, and aromatics. The remedy that first afforded even temporary relief was *burnt brandy;* but the patient's situation becoming more and more critical, a blister was applied between the shoulders, which gained a truce with the disorder for some hours; and, to supply the exhausted state of the system thus brought on, glysters of broth, and of wine-whey, were ordered to be injected frequently: notwithstanding the assiduous application of these means, and the continuance of the opium, which had been increased to one grain every four hours, on the second day of the sickness, he sunk under it, and died on the fifth day.

On the second day of the sickness, he was sensible of a diminution in the size of the

the swelling; and on the third, he told me that it was entirely gone.

I inspected the body the day after his death, and I examined the abdominal viscera with particular attention, as I do not recollect the account of any dissection published, in which the Digitalis had exerted so virulent an effect.

No appearance of disease presented itself on a general view, or on a more particular inquiry; nor did the stomach, on laying open its cavity, manifest any other change from its natural state, than a slight suffusion of redness, irregularly scattered over its internal surface, but by no means approaching to the appearances exhibited, by that organ, on dissection, after acute inflammation.

Though the sickness had been almost incessant for several days, yet the gall-bladder was found distended with bile.

The contents of the chest, however, had undergone a considerable morbid change, for its cavity was completely obliterated, by an addition of the external surface of the lungs to the pleura lining the ribs; and the pericardium had also become every where adherent to the substance of the heart; yet he had neither cough, difficulty of breathing, nor palpitation of the heart. These changes must have been very slow in their course, not to have produced irregularity in the action of the heart, nor any disturbance in the office of respiration; but it must be observed, that the lungs were otherwise perfectly sound.

The original disease was discovered to be a caries, in the upper end of the thigh bone.

I did not expect so violent an effect to ensue, from so small a dose of the Digitalis; for, in general, it may be administered in a much larger quantity, by gradually increasing

creasing the dose; and even when the sickness is brought on by an over dose, it rarely continues longer than three days. Its effect on the stomach, however, is extremely various; the smallest dose shall, in one instance, excite alarming symptoms; and, in another, several grains may be taken without producing any sensible effect.

In the year 1786, (for I have used the Digitalis many years) I gave the powder of the dried herb to a dropsical patient, in increased doses, till she took seven grains and a half, twice a-day, before any impression could be made on the stomach, or on the circulating system; the sickness then came on, and continued the usual time; but the water was absorbed, and the patient recovered. There could be no doubt of the preparation exhibited in this case being good, because half a grain of it, taken twice a-day, for a few days only, completely emptied another dropsical patient.

I once promoted the absorption of a large collection of matter, in a lumbar abscess, which originated from an internal cause, and pointed in the upper part of the thigh, by the use of calomel in small doses; as soon as the gums became affected, the matter was taken up, and deposited with the urine.

The hectical state of such patients, however, contra-indicates the exhibition of mercury, and directs us to the use of the Digitalis; which, from its known sedative effect on the arterial system, and its powerful excitement of the absorbents, promises, not only to calm the increased velocity of the pulse, but to promote the absorption of the matter; and thus, to supersede the making of an external opening. Perhaps absorption might be promoted in this case, by giving it in such small doses, as to preclude, as much as possible, all risk of inducing sickness, which does not appear to be at all necessary, to get rid of the water in dropsy.

The

The lumbar vertebræ are very commonly affected with caries, in this disease; and hence permanent relief will scarcely be expected from any means employed. I have for some time back, inserted a couple of issues opposite to the original seat of the complaint, in conjunction with the usual treatment; and, I think, in some cases, with a manifest suspension of its progress. If issues and the Digitalis were early employed, in collections of matter formed under the psoæ muscles, a cure might probably be effected, the caries being consequent to the formation of matter. But, when caries of the vertebræ is the primary affection, or has been induced by the pressure of a collection of matter, our expectations of ultimate success will not be very sanguine. Even in the worst case, I shall, in future, be disposed to pursue this method, in preference to any other yet proposed; issues have sometimes wrought astonishing cures in the incurvated spine; and, if they should fail, the Digitalis will quiet the hectical

hectical symptoms better than any other medicine with which we are acquainted. But this case shews the necessity of beginning with very small doses, and of increasing them with great circumspection.

W. SIMMONS.

Since

Since the preceding sheets were printed, I have had an opportunity of ascertaining the efficacy of an infusion of Digitalis, applied in form of a lotion, from which I conceive sanguine hopes of its advantages, as an external application. A very painful and ulcerated herpetic affection of the face, which was irritated by the most simple applications, and which would not bear the mildest preparations of lead, was relieved, immediately on the use of a simple infusion of Digitalis in water; and in a few days was reduced one half in size. I am happy to find, that no inconvenience has arisen, from continuing to apply it freely. I should suppose, from its action in this case, that Digitalis will prove a valuable cosmetic, in those irritable, inflammatory diseases of the face, which were said formerly to depend on acrimony of the fluids.

fluids. A more philosophical pathology has now referred the diseased action to the containing vessels; yet to be generally understood, it is necessary to recur to the old, erroneous phraseology.

This experiment, to which I was driven by the failure of every method previously known, has encouraged me to hope, that the lotion may at least give relief, in cancerous cases. Probably also, the anthrax may be palliated, if not cured, by this application.

END OF THE SECOND VOLUME.

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